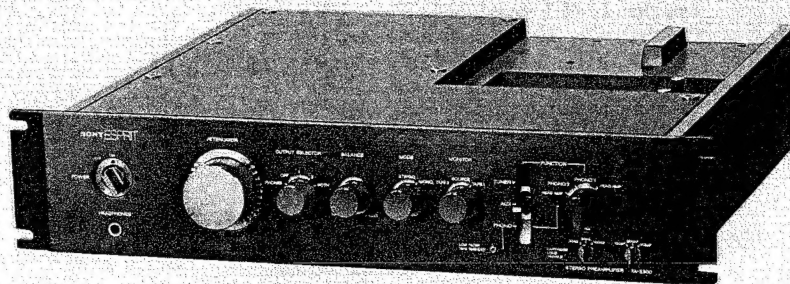


# TA-E900

US Model  
AEP Model  
UK Model



## STEREO PREAMPLIFIER

### SPECIFICATIONS


#### Inputs

|                       |                       | Sensitivity | Impedance            | Capacitance    | Maximum input level (1 kHz) | S/N (A network)  |         |                                       |
|-----------------------|-----------------------|-------------|----------------------|----------------|-----------------------------|------------------|---------|---------------------------------------|
| PHONO 1               |                       | 2.5 mV      | 50 k $\Omega$        | 100 pF         | 180 mV                      | 84 dB, 80 dB *   |         |                                       |
| HEAD AMP              | 40 $\Omega$ cartridge | 0.2 mV      | 4 $\Omega$           | —              | 15 mV                       | 72 dB            | 70 dB * | Equivalent input noise level -158 dBV |
|                       | 4 $\Omega$ cartridge  | 0.035 mV    |                      |                | 2.5 mV                      | 65 dB            |         |                                       |
| PHONO 2               |                       | 2.5 mV      | 25/50/100 k $\Omega$ | 100/200/400 pF | 180 mV                      | 84 dB, 80 dB *   |         |                                       |
| HEAD AMP              | 40 $\Omega$ cartridge | 0.2 mV      | 4 $\Omega$           | —              | 15 mV                       | 72 dB            | 70 dB * | Equivalent input noise level -158 dBV |
|                       | 4 $\Omega$ cartridge  | 0.035 mV    |                      |                | 2.5 mV                      | 65 dB            |         |                                       |
| TUNER, AUX, TAPE 1, 2 |                       | 150 mV      | 50 k $\Omega$        | —              | 12 V                        | 102 dB, 115 dB * |         |                                       |

\* '78 IHF

— Continued on next page —

#### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.



# SONY®

## SERVICE MANUAL

# TA-E900

## Outputs

|              | Voltage            | Impedance    |
|--------------|--------------------|--------------|
| REC OUT 1, 2 | 150 mV (max. 12 V) | 100 $\Omega$ |
| OUTPUT 1, 2  | 1.5 V (max. 12 V)  | 100 $\Omega$ |

Harmonic distortion  
Intermodulation (IM) distortion  
(60 Hz : 7kHz = 4 : 1)  
Frequency response  
Filter (PHONO inputs)  
Residual noise

Less than 0.005% (at 8 V output)  
Less than 0.005% (at 8 V output)  
PHONO 1,2 : RIAA equalization curve  $\pm 0.2$  dB  
TUNER, AUX, TAPE 1,2 : DC - 300 kHz  $\pm 0$  dB  
LOW 12 dB/octave attenuation below 15 Hz  
12  $\mu$ V (A weighting network, IHF)

## General System

Head amplifier  
Common-base, complementary push-pull amplifier in cascode connection  
Equalizer amplifier, Input buffer amplifier, Flat amplifier  
1st : Bootstrapped cascode differential amplifier  
2nd : Cascode differential amplifier, cascode current-mirror load  
Output : Darlington emitter-follower single end push-pull output  
(Equalizer amp : NF type)

## Power requirements

Power supply : Two regulated power supplies for each channel  
US model: 120 V ac, 60 Hz  
AEP model: 220 V ac (or 240 V ac adjustable by  
authorized Sony personnel), 50 Hz  
UK model: 240 V ac (or 220 V ac adjustable by  
authorized Sony personnel), 50 Hz  
27 watts

## Power consumption AC outlets (only for US model)

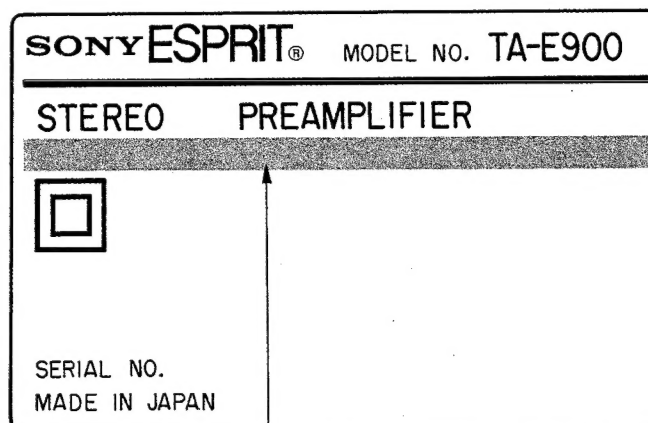
SWITCHED (450 watts capacity)  
UNSWITCHED (450 watts capacity)  
Approx. 480  $\times$  105  $\times$  455 mm (19  $\times$  4 $\frac{1}{4}$   $\times$  18 inches) (w/h/d)  
Approx. 13 kg (28 lbs 10 oz), net  
Approx. 14.5 kg (31 lbs 15 oz), in shipping carton  
Shorting plugs (2)  
Dust-proof caps (18)

## Dimensions Weight

## Supplied accessories

## MODEL IDENTIFICATION

— Specification Label —



UK model: AC 240V~ 50/60Hz 27W  
US model: AC 120V~ 60Hz 27W  
AEP model: AC 220V~ 50/60Hz 27W

**TA-E900**

3

# TA-E900

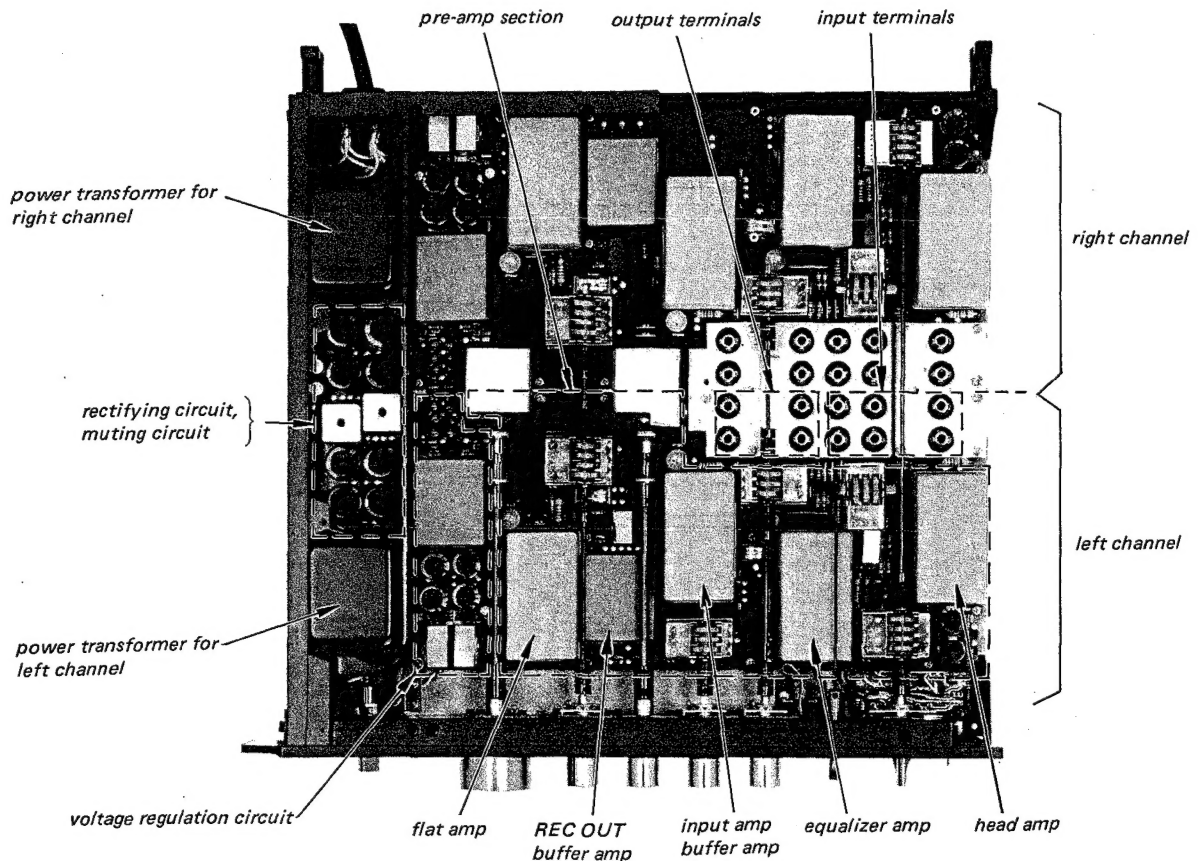
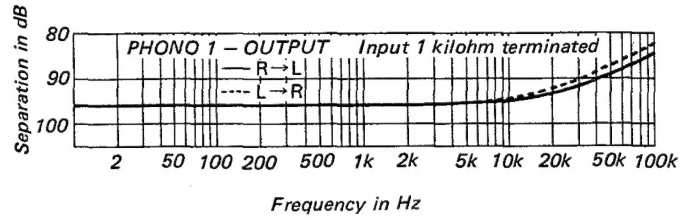
## 1-2. INTERNAL CONSTRUCTION AND LAYOUT

The TA-E900 consists of two monaural preamplifiers in a single cabinet with a separate power supply for each channel.

Input and output terminals are concentrated so that any potential difference between two channels is eliminated.

Attenuator volume and balance controls are embodied in a case which includes the two channel components with a shield between them. All of these features provide an excellent channel separation. Switches, mechanically linked from the front panel selectors, are located as closely as possible to the signal circuits. This provides a short signal path, keeping the wiring loss as low as possible as well as contributing to the excellent channel separation.

Channel separation





### 1-3. CIRCUIT DESCRIPTION

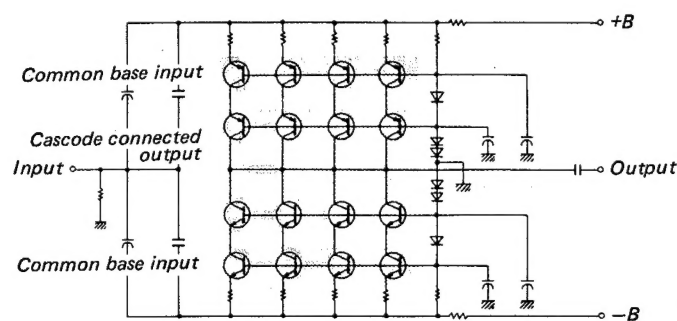
#### 1-3.1. Head Amplifier

There are two ways to boost the low output voltage of a moving-coil cartridge: the use of a step-up transformer, and the use of a head amplifier. The step-up transformer can provide superior signal-to-noise ratio and better reproduction of middle frequencies than most head amps. But head amps can provide wider and more linear frequency response and lower distortion than the step-up transformers. After considering the relative merits of both step-up transformer and head amp, we designed the following circuit for the preamplifier function.

As shown in the figure, the head amplifier of the TA-E900 is a common base push-pull amplifier in cascode connection. The common base amplifier boosts the voltage by changes in its internal resistance.

The current from the power source is only the dc bias current so that it doesn't fluctuate with the input signal. Though common NF type head amplifiers can influence each other via the power sources, as the impedance of the NF circuit is low, this head amplifier has stable characteristics with relation to the power source.

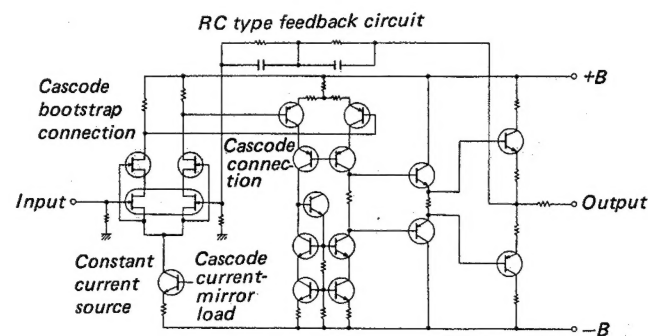
This head amplifier boosts the output voltage without affecting the tonal quality, while providing an excellent signal-to-noise ratio.



#### 1-3.2. Equalizer Amplifier

The first stage of the TA-E900 equalizer amplifier is a dual-FET differential amplifier. The dual-FET has been especially developed for the differential amplifier, which features a remarkably low temperature characteristic and well-balanced electric characteristics, and which has been designed to have high conductance (gm) and low feedback capacitance for high quality sound with excellent signal-to-noise ratio. A cascode bootstrap connection of each component greatly reduces the effects of power supply voltage fluctuation.

In the driving stage, a cascode connection with a PNP transistor differential amplifier reduces the effect of temperature drift and improves linearity. The current-mirror circuit in a cascode connection makes the power consumption of both collectors equal and reduces the temperature drift. The current from the differential circuit is picked up at a single ended output through the current-mirror circuit. The final stage incorporates a Darlington compound emitter-follower push-pull amplifier to enable it to drive load requiring a higher output.



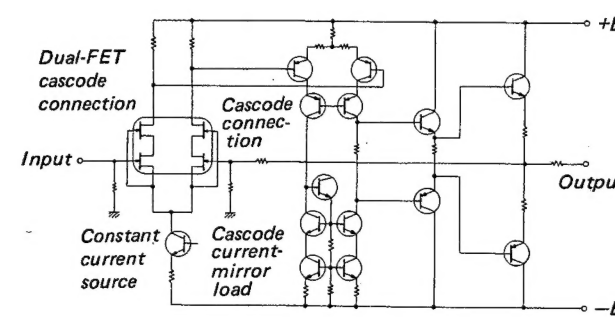
#### 1-3.3. Input Buffer Amplifier and Flat Amplifier

The difference between the construction of the input buffer amplifier and that of the flat amplifier lies in the amount of feedback used, and the resultant effect on the gain. The gain of the input buffer amp is 0dB, and the gain of the flat amp is 20dB.

The construction, except for the feedback circuit and first stage FET of both input buffer and flat amps is almost the same as the equalizer amp. These amplifiers are dc amp types without coupling capacitors, so that it is necessary to keep the temperature drift of the output as low as possible. Because of this, FETs with extremely low dc drift have been selected from quadruple FETs for the first stage. The input buffer amplifier is so designed, that its input impedance is high and its output impedance is low, so as to drive attenuator and balance controls without any effect on the frequency response or distortion.

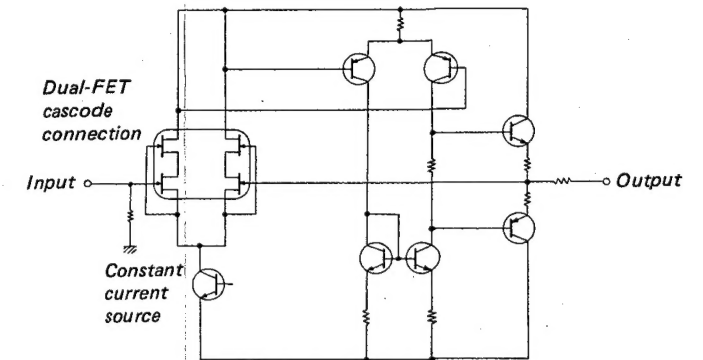
The output of the flat amplifier becomes the output of the TA-E900.

To avoid any degradation of the frequency response by the cable capacitance when the preamplifier is connected to the power amplifier, it is essential that the output impedance be relatively low. The current level of the TA-E900 output stage is designed to be high and the series-impedance is extremely low (100 ohms).



#### 1-3.4. REC OUT Buffer Amplifier

A REC OUT buffer amplifier is incorporated so that the flat amplifier is not adversely influenced by any tape decks connected to the REC OUT jacks, and can furnish its signal flow without distortion. The gain of this buffer amplifier is unity (0dB).

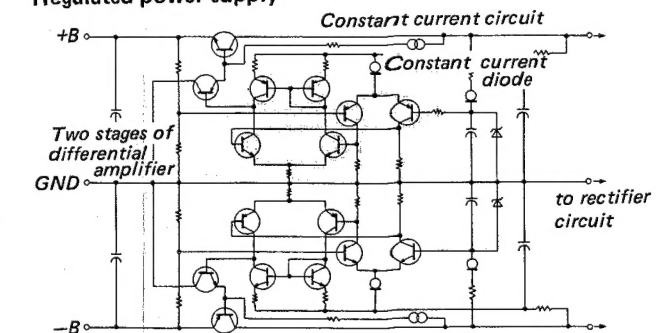


#### 1-3.5. Power Supply Section

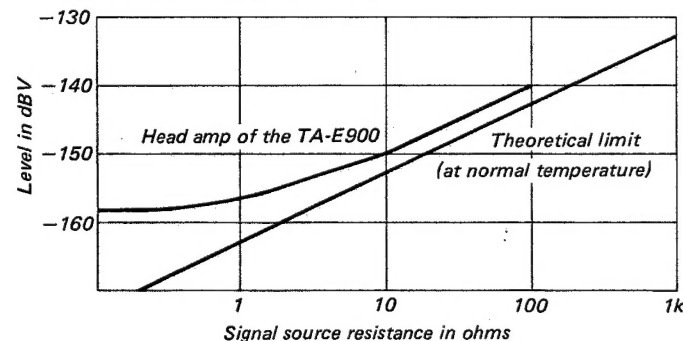
The preamplifier stages are powered by a completely separate power supply for each channel, which helps to reduce the interaction between channels. The secondary output of each power is stabilized by its own powerful voltage regulator after being diode rectified.

This powering system holds crosstalk down to a minimum and assures a constant voltage supply with low power line hum.

#### Regulated power supply

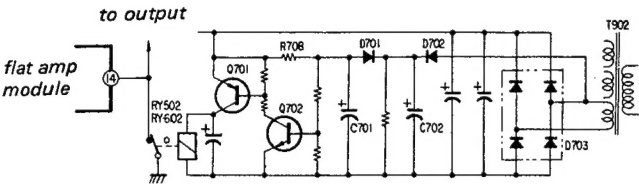


Equivalent input noise level



1-4. RELAY DRIVE CIRCUIT

Relay drive circuit is the circuit for driving RY502, 602 (relay for the muting) and is composed of Q701, 702 on the power supply board. This circuit is for the muting when power is turned on or off. When the power is on, signal is designed to flow. Figure below illustrates its operation.



1-4-1. Operation When the Power is On:

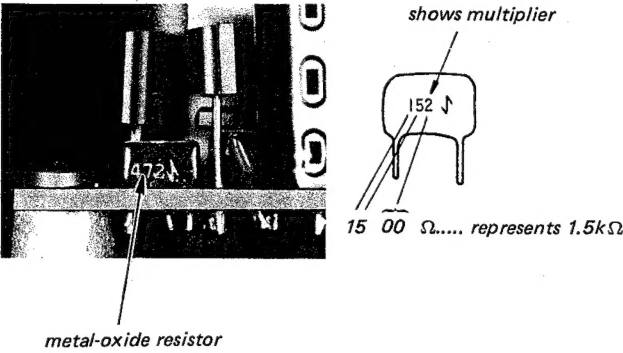
- 1) B+ begins to be generated when the power switch turns on.
- 2) B+ is applied to C701 through R708 and C701 begins to be charged. When charging C701 begins, B+ voltage increases.
- 3) Q702, 701 are off, and RY502, 602 are still off till charging C701 is completed.
- 4) When the power is stable and C701 is charged, Q702, 701 turn on and relay operates and output is output from OUTPUT.

1-4-2. Operation When the Power is Off:

- 1) When the power switch is turned off, D701, though being off because of D702, turns on and C701 discharges through D701, R711.
- 2) To turn Q702, 701 off, RY502, 602 turn off and output is not output from OUTPUT.

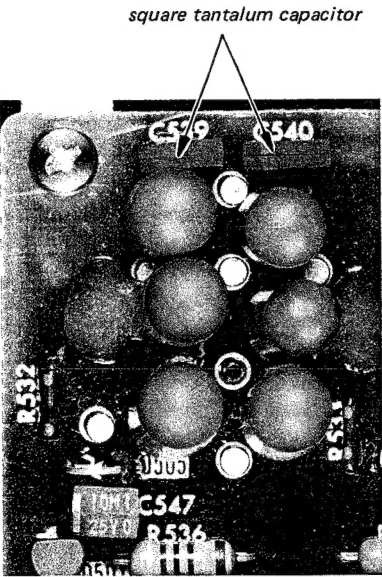
1-5. SMALL RESISTORS

The TA-E900 uses many small resistors, similar to the type shown in the figure below. These resistors are 1/4W metal-oxide with an accuracy of 1%. Note that this accuracy rating has been omitted in the schematic diagrams.



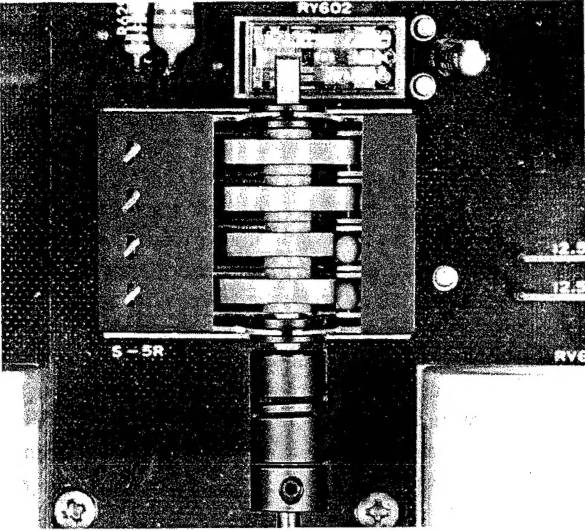
1-6. SQUARE TANTALUM CAPACITORS

The capacitors employed in the TA-E900 (as shown in the figure below) are the same square tantalum capacitors used in pulse circuit power supplies, etc. These capacitors are especially used in the B+ and B- bus where their greater by-pass effect is needed.

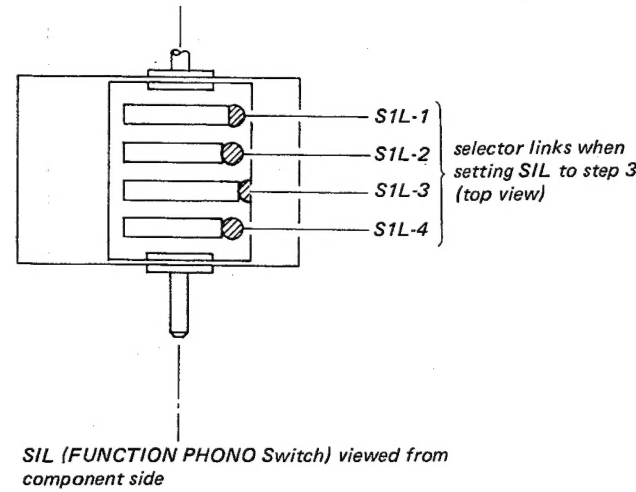
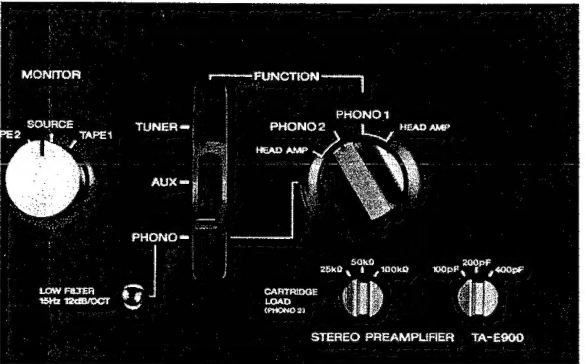


1-7. CAM EQUIPPED SWITCH INDICATION

The selector switches employed in TA-E900 are each equipped with a cam, and a number (3 or 4) of slide switch elements which move in an irregular fashion when the cam rotates.



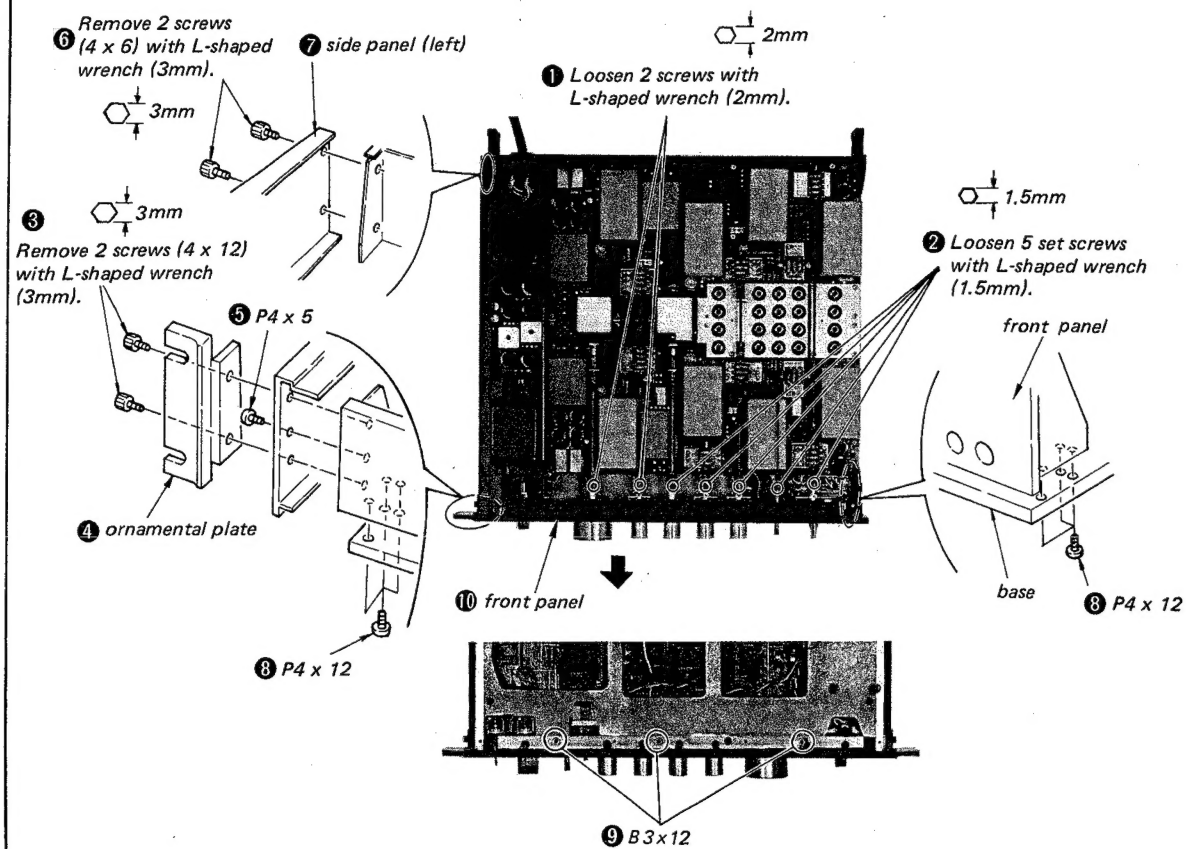
As an example of this arrangement, S1L (FUNCTION PHONO INPUT) is shown in the figure below.



There are a total of ten switches employed in the TA-E900, making it impossible to determine which points are making contact at different select positions. For this reason, both the schematic diagram and the mounting diagram include special charts of the contact patterns for each switch position. Note that these charts indicate the position of the blue switch link heads as viewed from the component side, thereby simplifying checking operations as well.

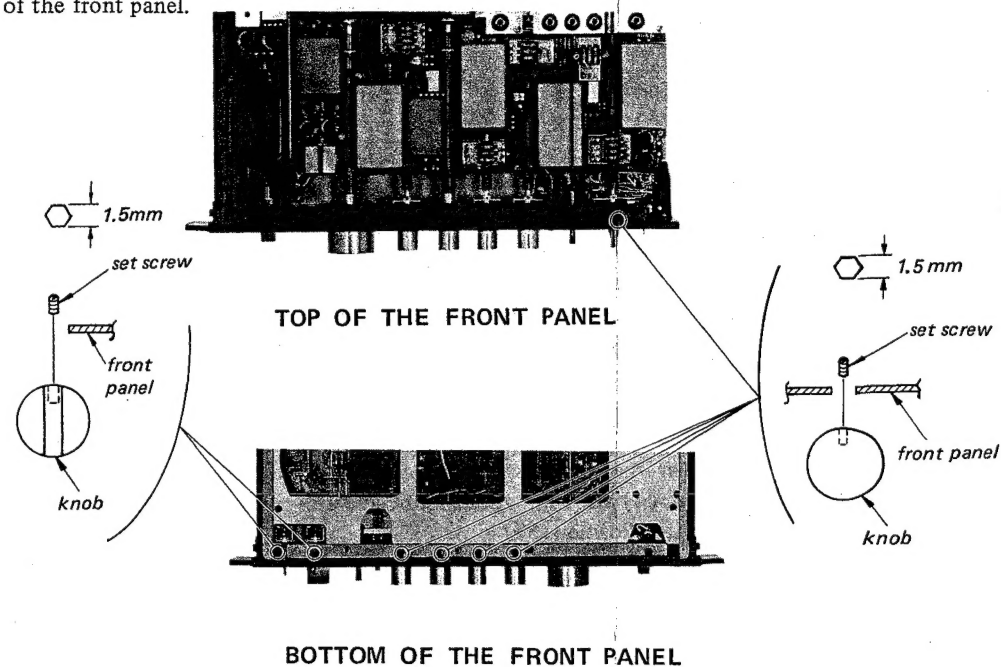
| PHONO 2<br>HEAD AMP<br>3Ω 40Ω                          |                          |                          | PHONO 1<br>HEAD AMP<br>40Ω 3Ω |                          |                          |             |
|--|--------------------------|--------------------------|-------------------------------|--------------------------|--------------------------|-------------|
| <input type="checkbox"/>                               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>      | <input type="checkbox"/> | <input type="checkbox"/> | ..... S1L-1 |
| <input type="checkbox"/>                               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>      | <input type="checkbox"/> | <input type="checkbox"/> | ..... S1L-2 |
| <input type="checkbox"/>                               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>      | <input type="checkbox"/> | <input type="checkbox"/> | ..... S1L-3 |
| <input type="checkbox"/>                               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>      | <input type="checkbox"/> | <input type="checkbox"/> | ..... S1L-4 |
| (step)<br>(1)  | (2)                      | (3)                      | (4)                           | (5)                      | (6)                      |             |
| movement of switch contacts viewed from component side |                          |                          |                               |                          |                          |             |

## FRONT PANEL REMOVAL



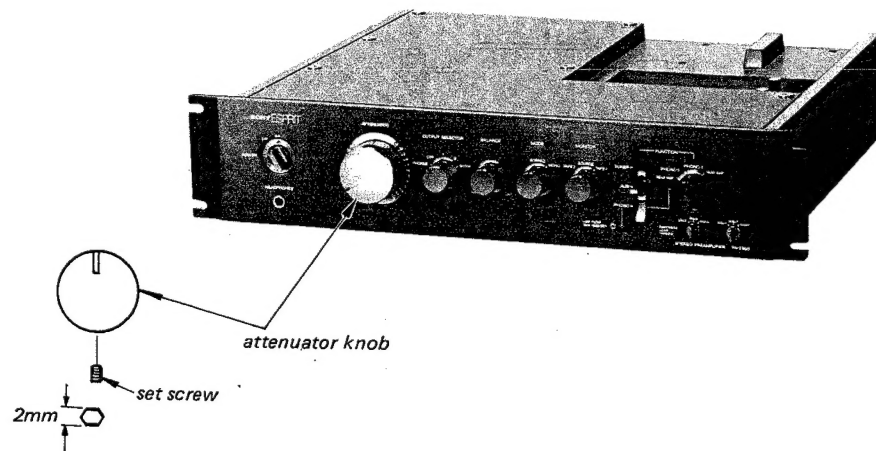
## KNOBS REMOVAL

Remove knobs by loosening set screws by L-shaped wrench (1.5mm) from the top or bottom of the front panel.



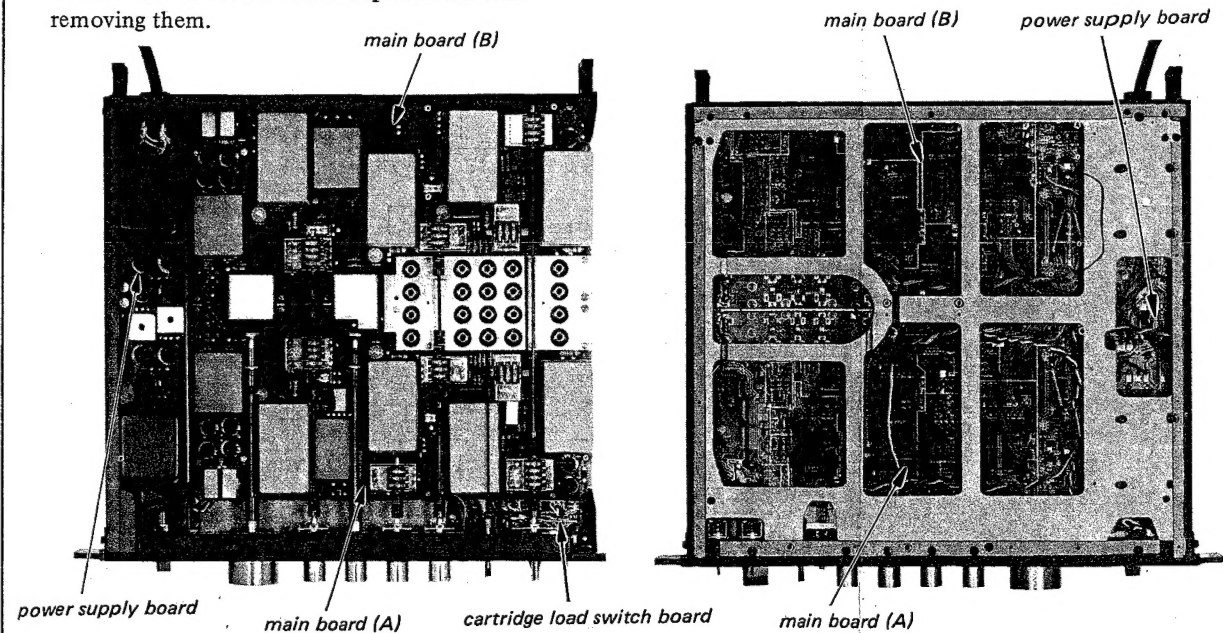
## ATTENUATOR KNOB REMOVAL

Remove knob by loosening a set screw with L-shaped wrench (2 mm).

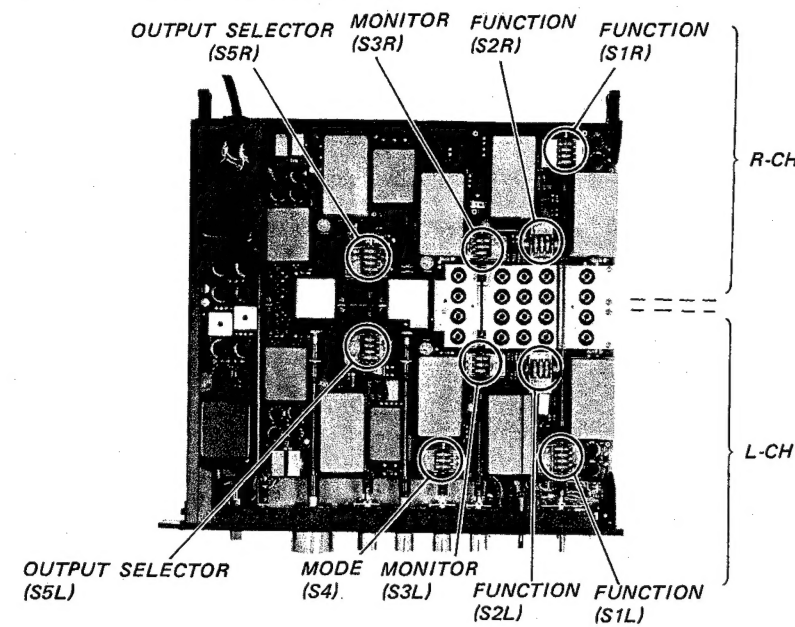


### CHECK OF EACH BOARD

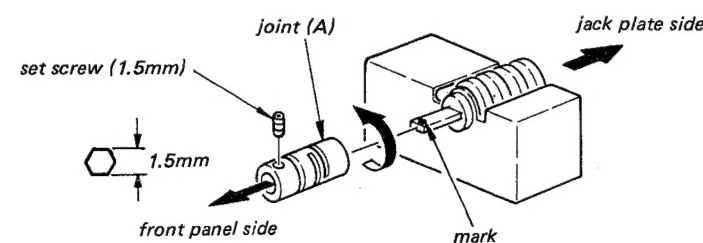
Printed circuit boards can be repaired without removing them.



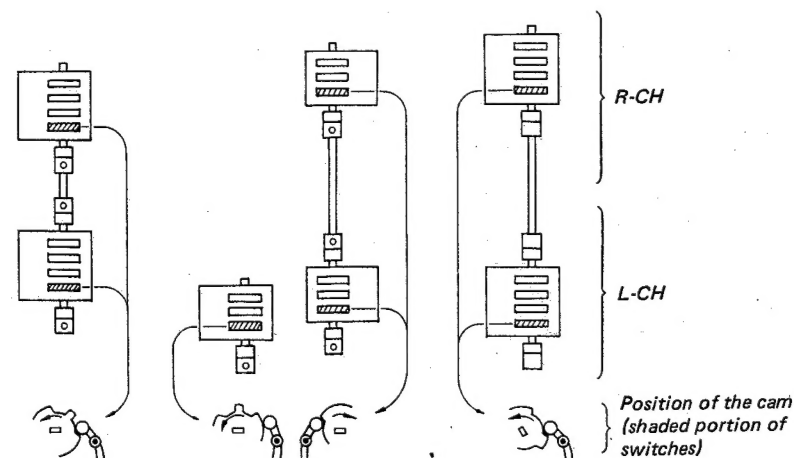
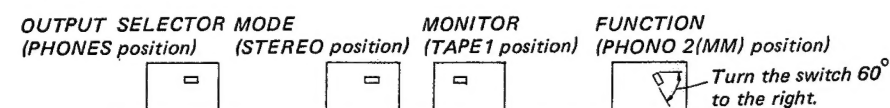
# NOTE ON ROTARY SWITCH INSTALLATION



- 1) Turn the shaft as shown below and install the joint (A) and etc. with its mark side up.
  - 2) Switch Position (S3)
- Install S3 with its mark side against the jack plate.

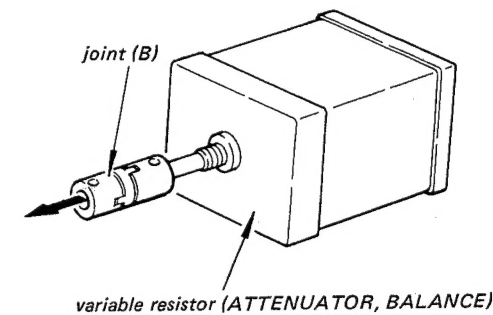


Install knobs as shown below.

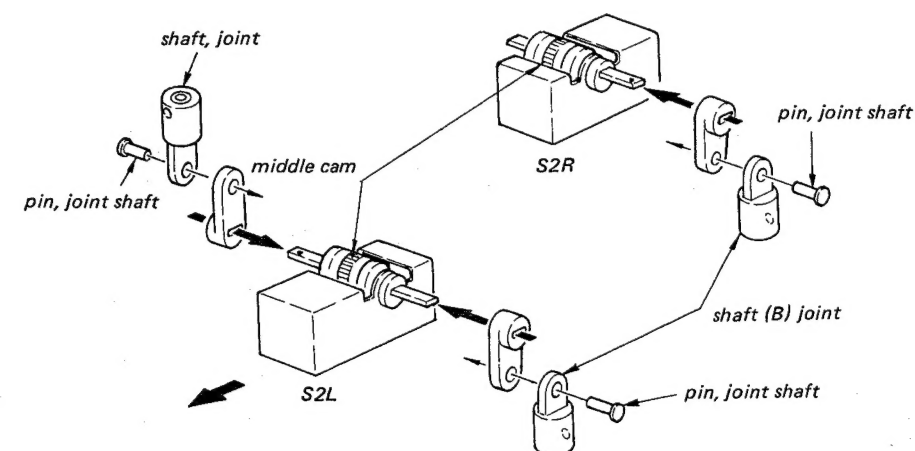


## JOINT (B) REMOVAL

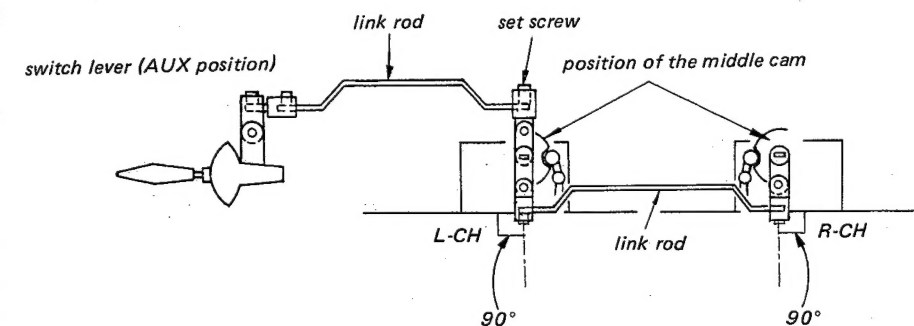
Do not pull the front part of the joint (B) in the direction shown by the arrow, because the front part is combined with the rear part through a spring. Be sure to loosen the set screws and remove the joint (B).



## 3) Switch Position (S2)



Set the switch lever to the AUX position and install the link rod as shown below.

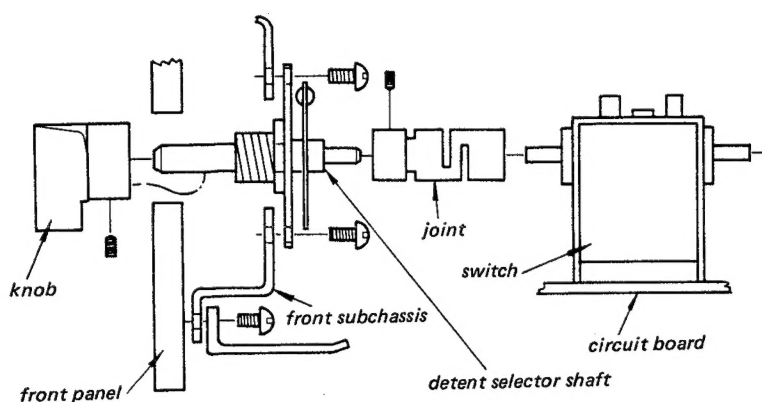




### 1-8. ORDER OF PARTS IN SWITCH ASSEMBLIES

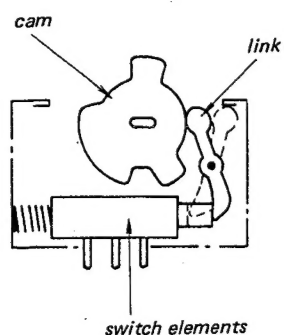
A typical switch assembly, including the switch, the joint, front panel and selector knob, is shown the figure below.

Whenever such switch assemblies are taken apart, the position of parts must be noted, either by marking each part, or by some other method.



### 1-9. SWITCH ANGLE ALIGNMENT

This switch is turned on or off through the switch links and switch cam. A feature of the switch is the absence of click stops which determine the actual switching position. Therefore, it is necessary to align correctly the selector knob with its corresponding switch position.



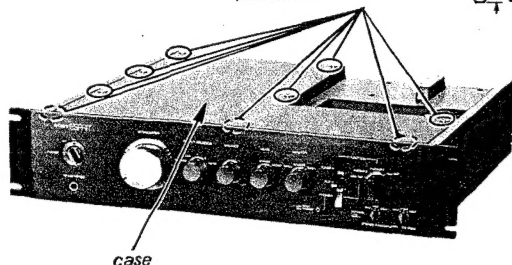
## SECTION 2 DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

### CASE REMOVAL

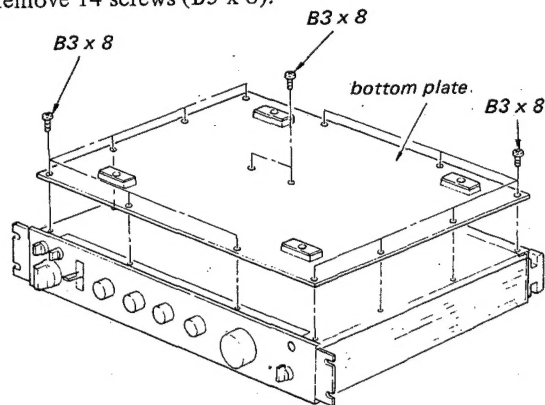
Remove 9 screws (3 x 5) with an L-shaped wrench (2.5mm).

2.5mm

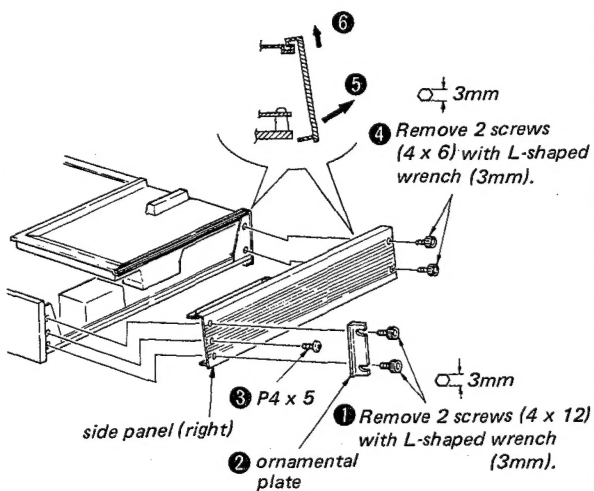


### BOTTOM PLATE REMOVAL

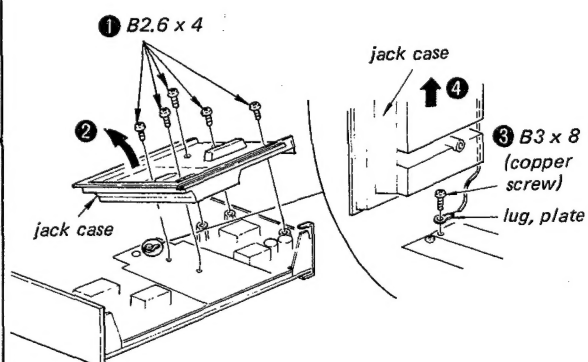
Remove 14 screws (B3 x 8).



### SIDE PANEL (RIGHT) REMOVAL



### JACK CASE REMOVAL





## SECTION 3 ADJUSTMENTS

### OFFSET ADJUSTMENT-1 (PHONO EQ AMP)

#### Setting:

POWER switch : ON  
FUNCTION switch (S1) : PHONO 1  
FUNCTION switch (S2) : PHONO

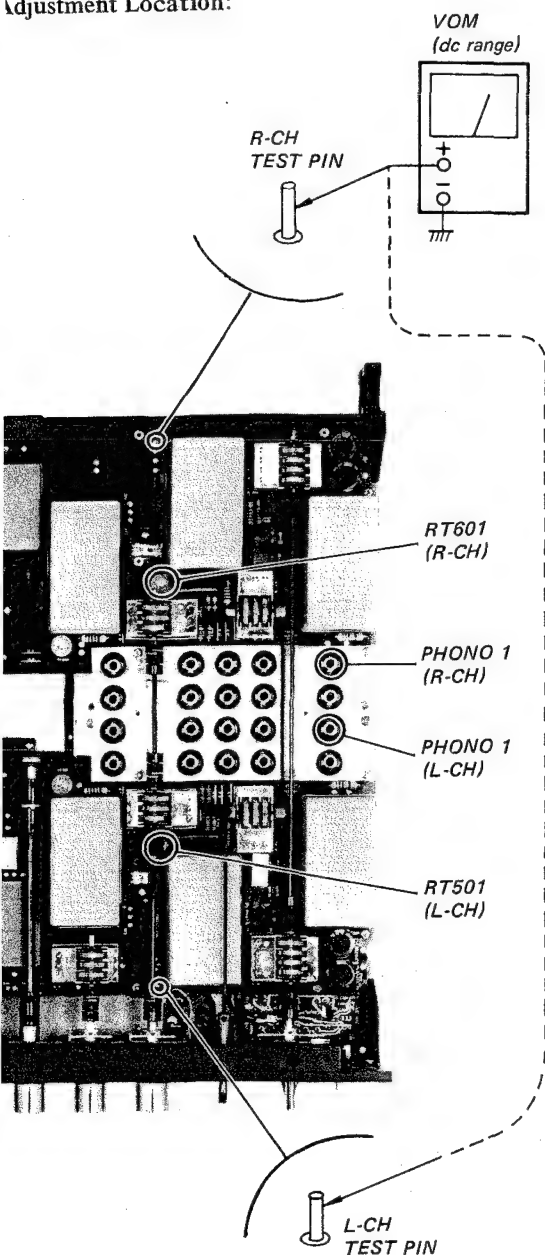
#### Procedure:

1. Terminate the PHONO 1 jack with a shorting plug.
2. Adjust RT501 (L-CH) and RT601 (R-CH) for 0V reading on VOM.

#### Specification:

EQ OUT level:  $0 \pm 0.1V$

#### Adjustment Location:



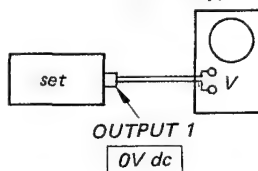
### OFFSET ADJUSTMENT-2 (OUTPUT AMP)

#### Setting:

POWER switch : ON  
ATTENUATOR control : fully counter-clockwise  
OUTPUT SELECTOR switch : 1

#### Procedure:

oscilloscope  
(dc range, vertical amplifier  
sensitivity; 1mV/div or less)

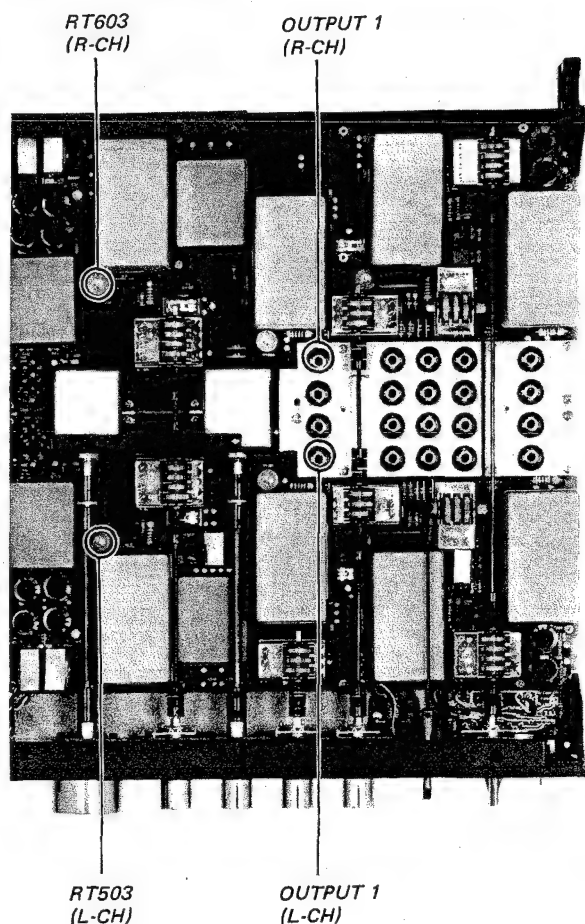


1. Adjust RT503 (L-CH) and RT603 (R-CH) for 0V reading on oscilloscope.

#### Specification:

OUTPUT 1 level:  $0 \pm 0.1mV$

#### Adjustment Location:



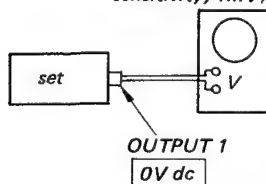
# OFFSET ADJUSTMENT-3 (BUFFER AMP)

## Setting:

|                        |                   |
|------------------------|-------------------|
| POWER switch           | : ON              |
| FUNCTION switch        | : TUNER           |
| MONITOR switch         | : SOURCE          |
| MODE switch            | : STEREO          |
| BALANCE control        | : mechanical mid  |
| ATTENUATOR control     | : fully clockwise |
| OUTPUT SELECTOR switch | : 1               |

## Procedure:

*oscilloscope  
(dc range, vertical amplifier  
sensitivity: 1mV/div or less)*



1. Terminate the TUNER jack with a shorting plug.
2. Adjust RT502 (L-CH) and RT602 (R-CH) for 0V reading on oscilloscope.

## Specification:

OUTPUT 1 level:  $0 \pm 0.1\text{mV}$

## Adjustment Location:

RT602  
(R-CH)

OUTPUT 1  
(R-CH)

TUNER INPUT  
(R-CH)

TUNER INPUT  
(L-CH)

OUTPUT 1  
(L-CH)

RT502  
(L-CH)

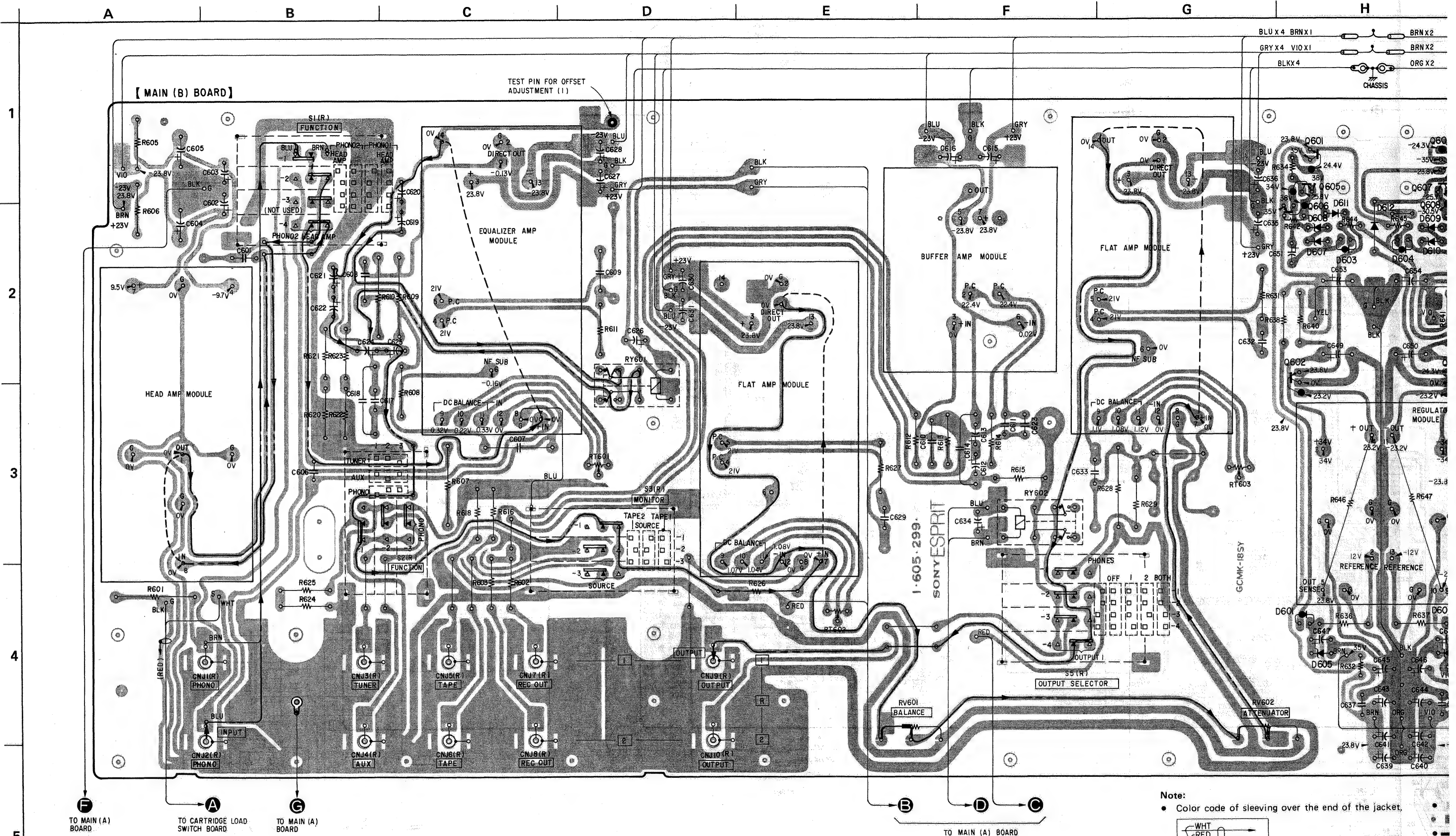
# MUTING TIME CHECKING

Confirm the operation of the relays (RY502, 602)

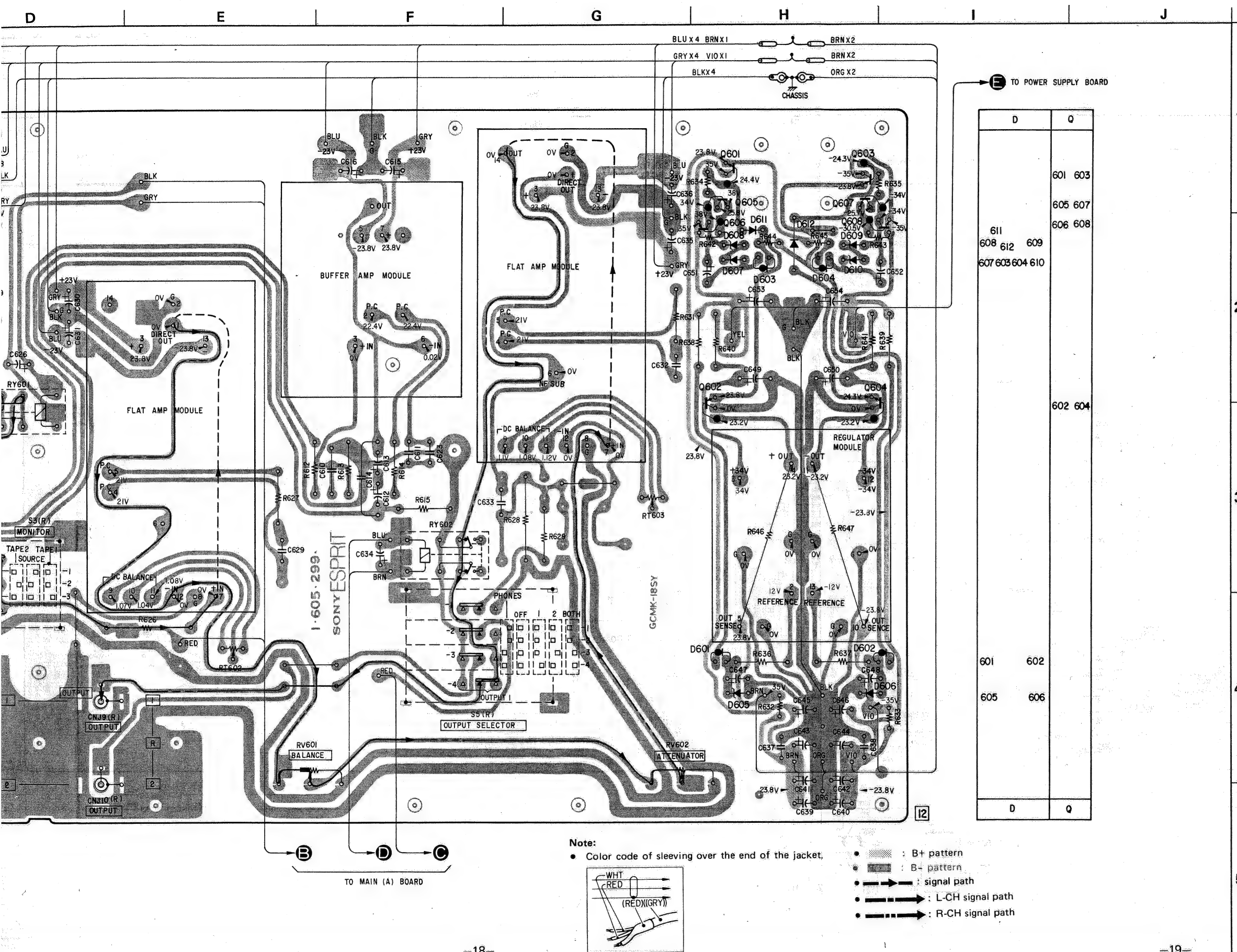
- RY502 and RY602 are energized at about five seconds after the POWER switch is turned ON.
- RY502 and RY602 are released at the moment when the POWER switch is turned OFF.

SECTION 4  
DIAGRAMS

4-1. MOUNTING DIAGRAM





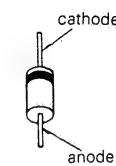


• Semiconductor Lead Layouts

2SB719  
2SB720  
2SD759  
2SD760



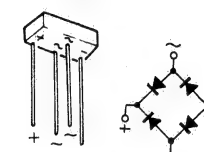
1S1555  
10E2  
EQA01-12R1  
HZ24-2L  
HZ24-3L



2SA1138  
letter side



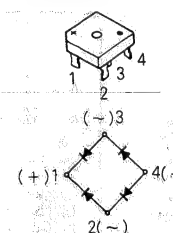
S1RB10



2SB734  
2SC2676



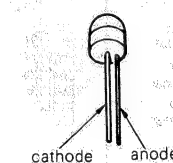
PB102F



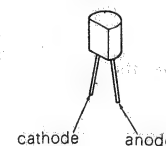
2SC1364



SLP114A



10YG1.1



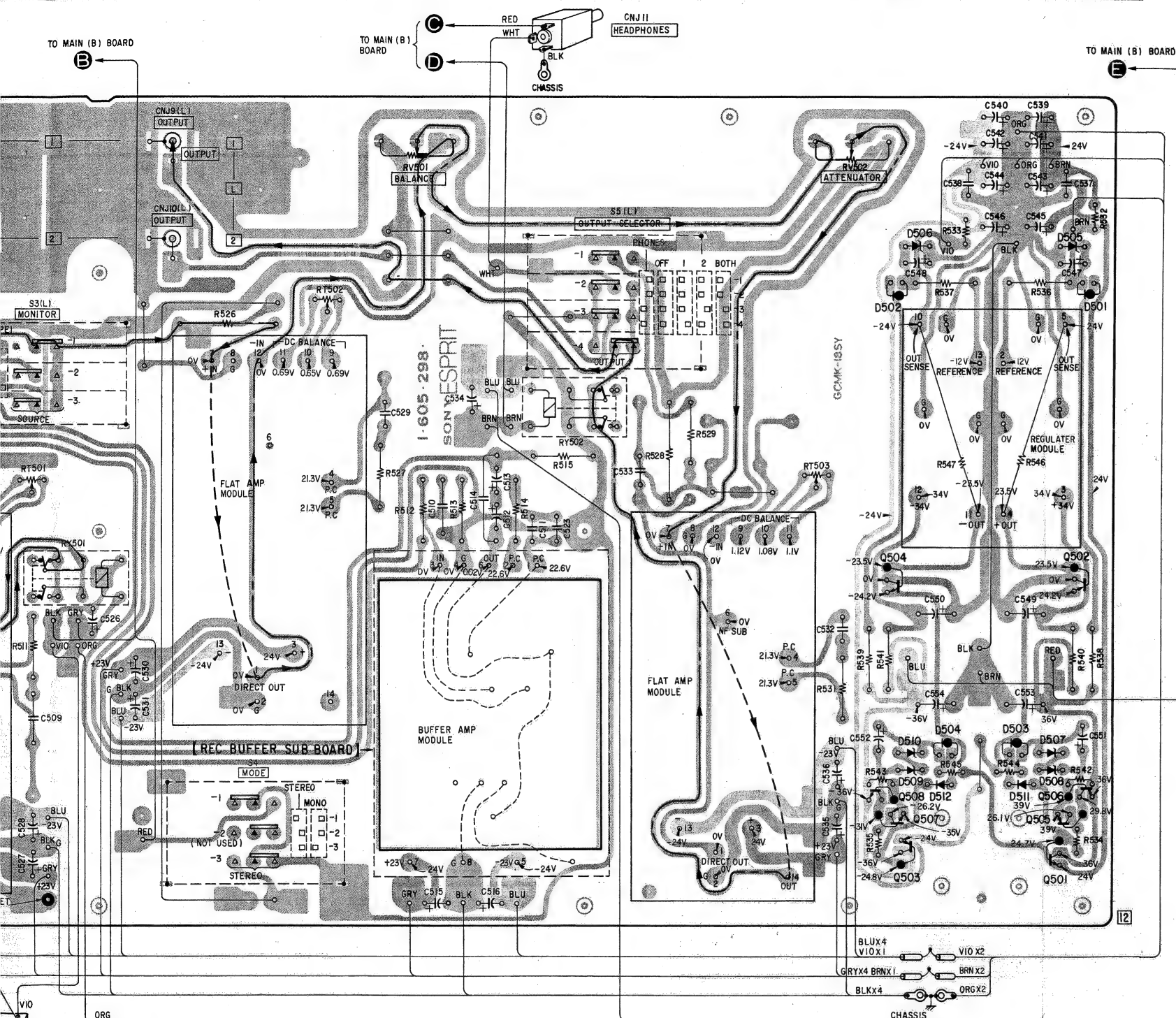
| D   | Q   |
|-----|-----|
| 601 | 603 |
| 605 | 607 |
| 606 | 608 |
| 611 |     |
| 608 | 612 |
| 609 |     |
| 607 | 603 |
| 604 | 610 |
| 602 | 604 |
| 601 | 602 |
| 605 | 606 |
| D   | Q   |



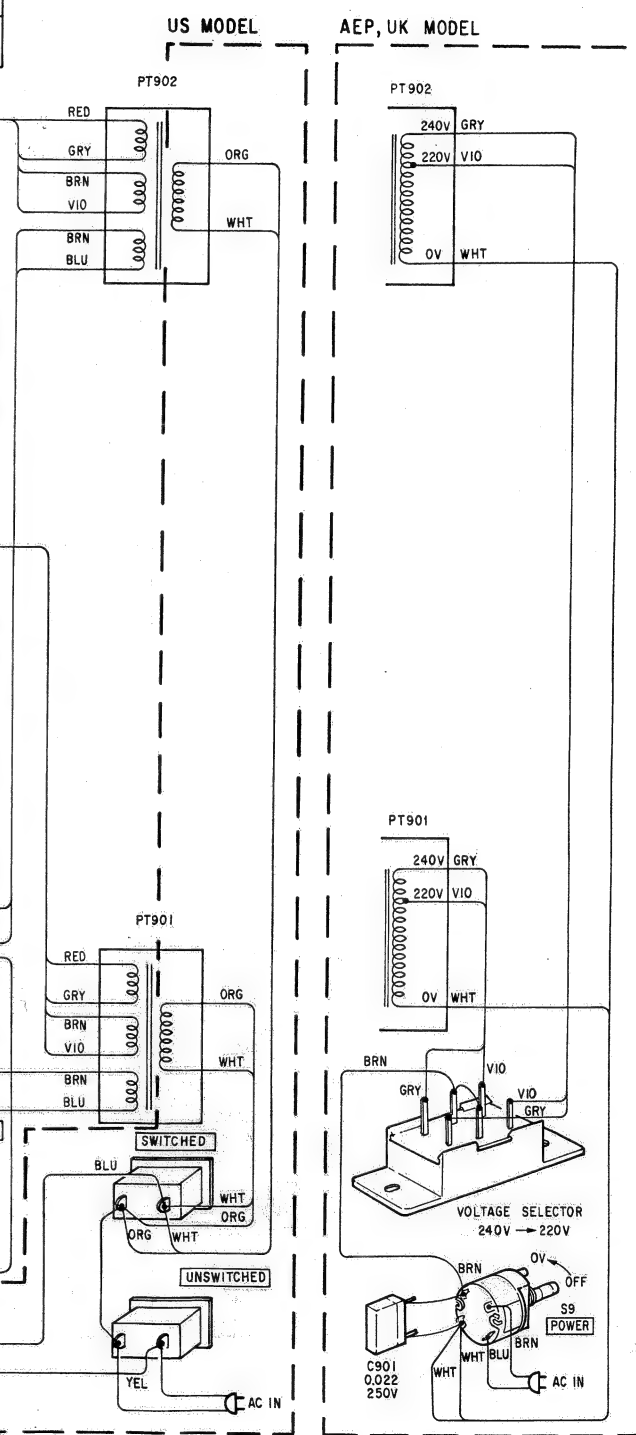
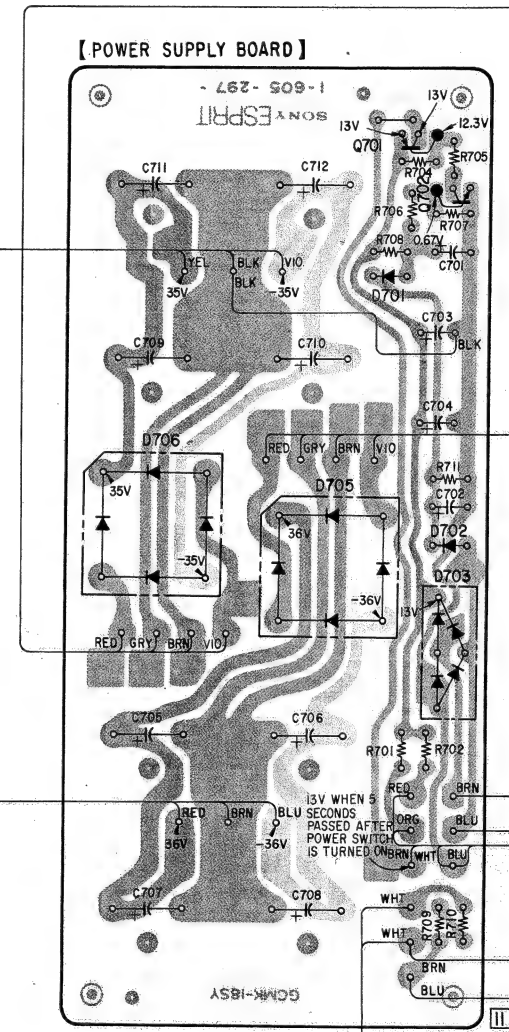


E F G H I J K L

|        |     |     |     |     |     |   |
|--------|-----|-----|-----|-----|-----|---|
| 506    | 510 | 504 | 503 | 507 | 505 |   |
| 502    | 509 | 512 | 511 | 508 | 501 | D |
| 504    |     |     |     |     | 502 |   |
| 508    |     |     |     |     | 506 | Q |
| 507503 |     |     |     | 501 | 505 |   |



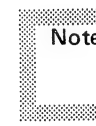
|   |     |     |     |     |     |   |
|---|-----|-----|-----|-----|-----|---|
| D | 706 | 705 | 701 | 702 | 703 | D |
| Q |     |     | 701 | 702 |     | Q |

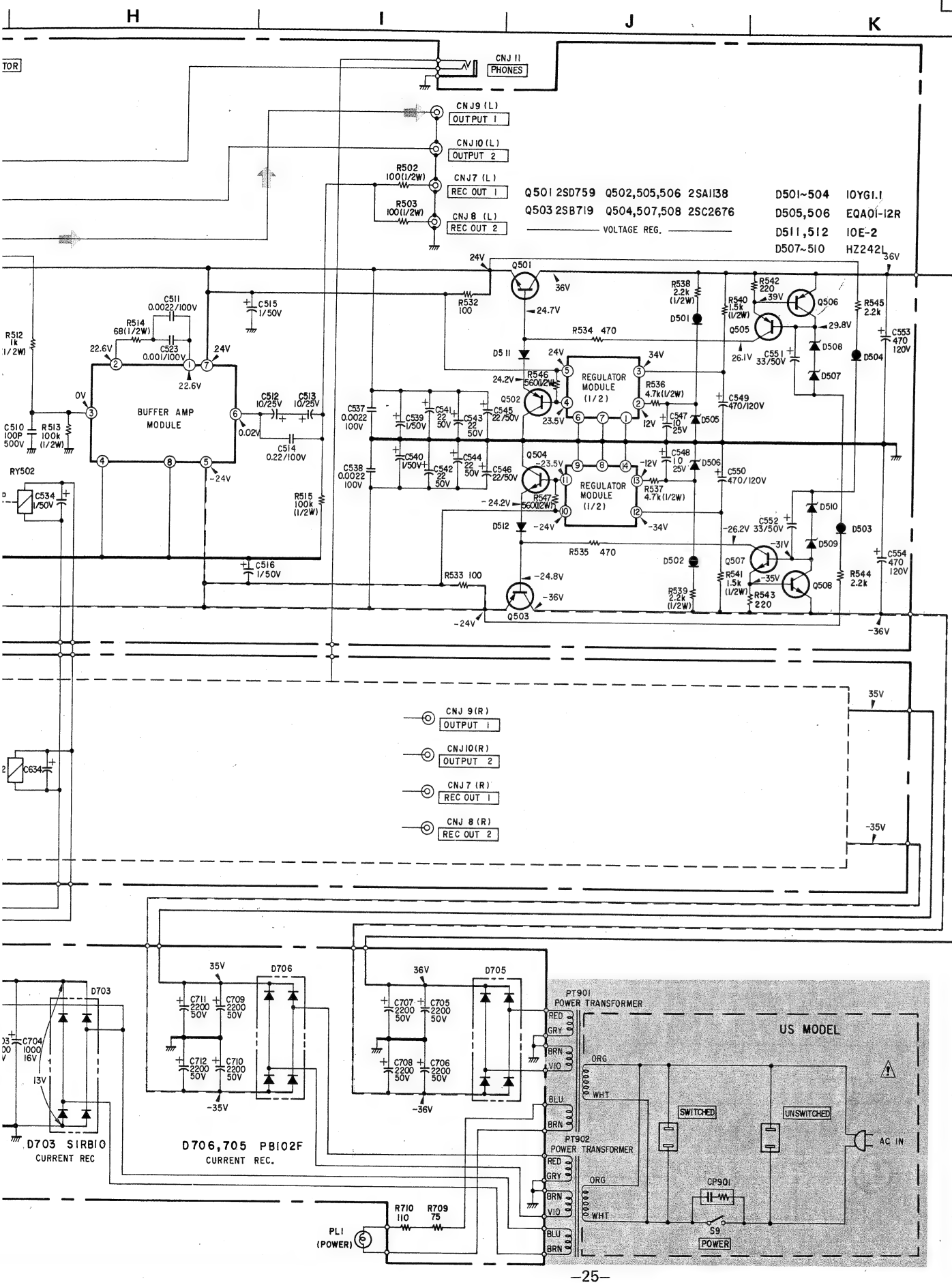




**TA-E900      TA-E900**










**Note:** Exchange each module when module section (head amp, equalizer amp, flat amp, buffer amp, regulator) is out of order.

**Note:**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF} : \mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms,  $\frac{1}{4}\text{W}$  unless otherwise noted.  $\text{k}\Omega : 1000\ \Omega$ ,  $\text{M}\Omega : 1000\ \text{k}\Omega$ .
-  : adjustment for repair.
-  : B+ bus.
-  : B- bus.
- Readings are taken under no-signal conditions with a VOM ( $20\text{k}\Omega/\text{V}$ ).
- Switch

| Ref. No. | Switch                   | Position     |
|----------|--------------------------|--------------|
| S1       | FUNCTION                 | PHONO 2      |
| S2       | FUNCTION                 | PHONO        |
| S3       | MONITOR                  | SOURCE       |
| S4       | MODE                     | STEREO       |
| S5       | OUTPUT SELECTOR          | 1            |
| S6       | CARTRIDGE LOAD (PHONO 2) | 25k $\Omega$ |
| S7       | CARTRIDGE LOAD (PHONO 2) | 100pF        |
| S8       | LOW FILTER               | OFF          |
| S9       | POWER                    | OFF          |

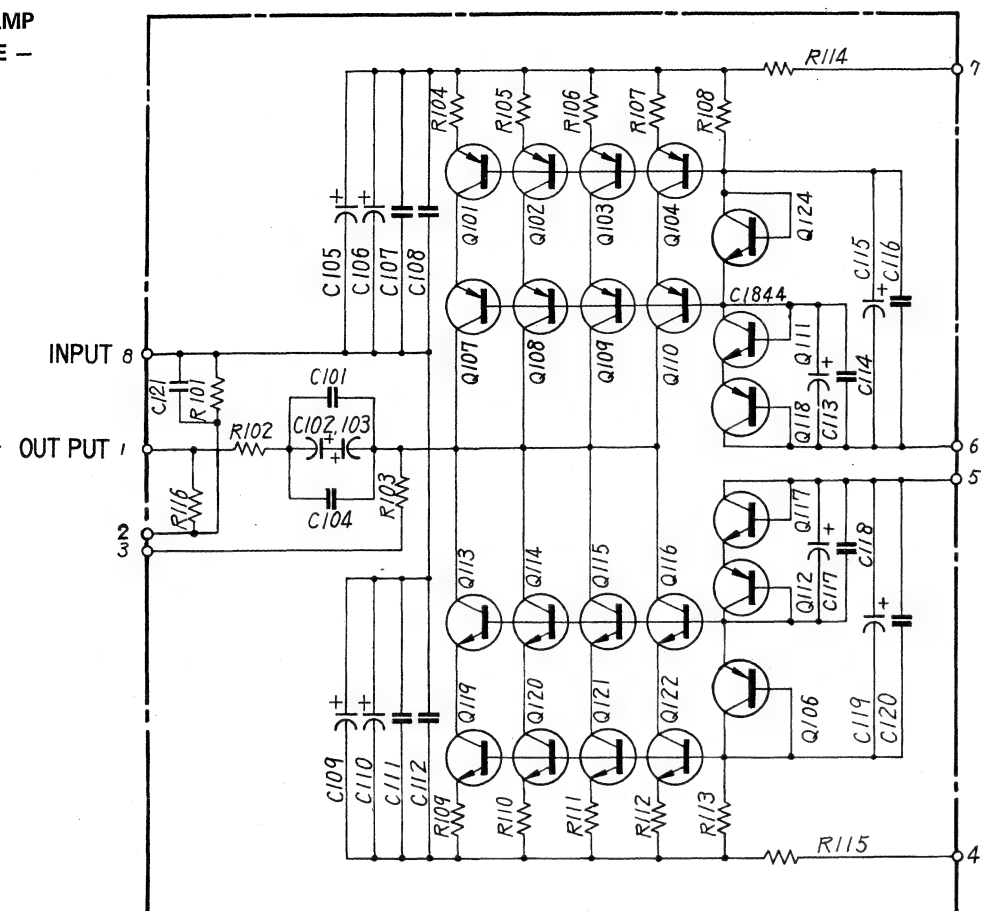
-  : signal path

**Note:** Voltages are measured with a VOM (50k $\Omega$ /V).

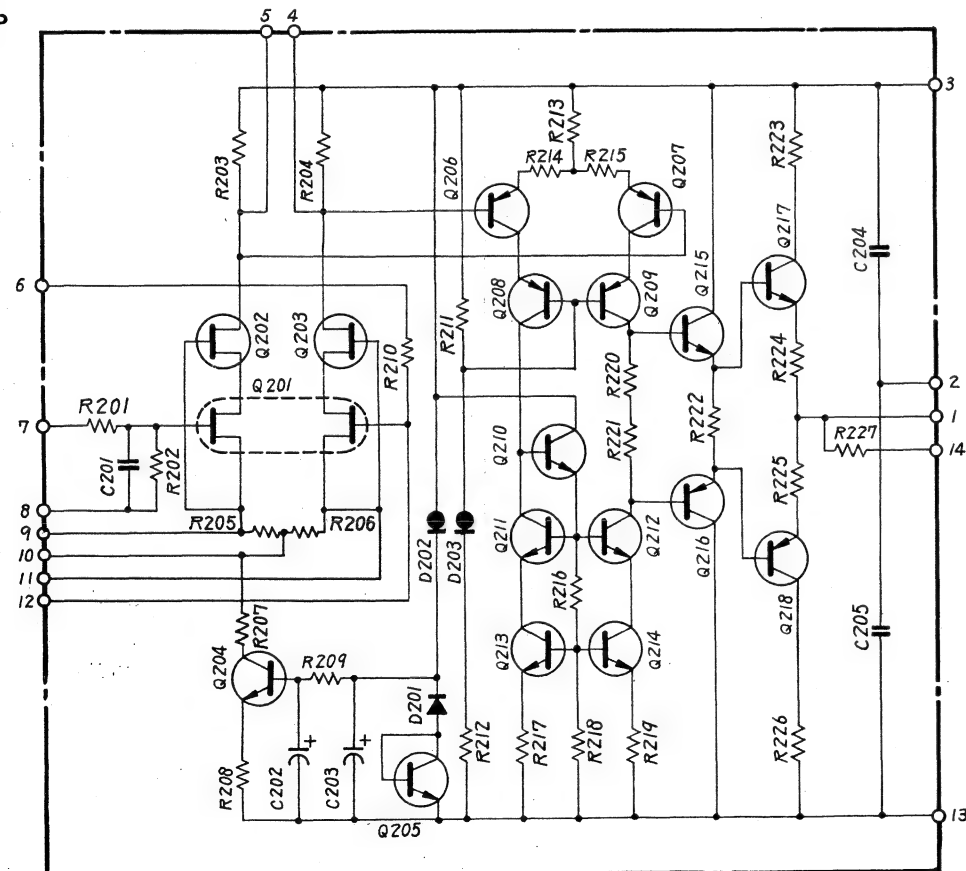
**Note:** The components identified by shading and mark  are critical for safety. Replace only with part number specified.

**TA-E900    TA-E900**

— FLAT AMP  
MODULE —



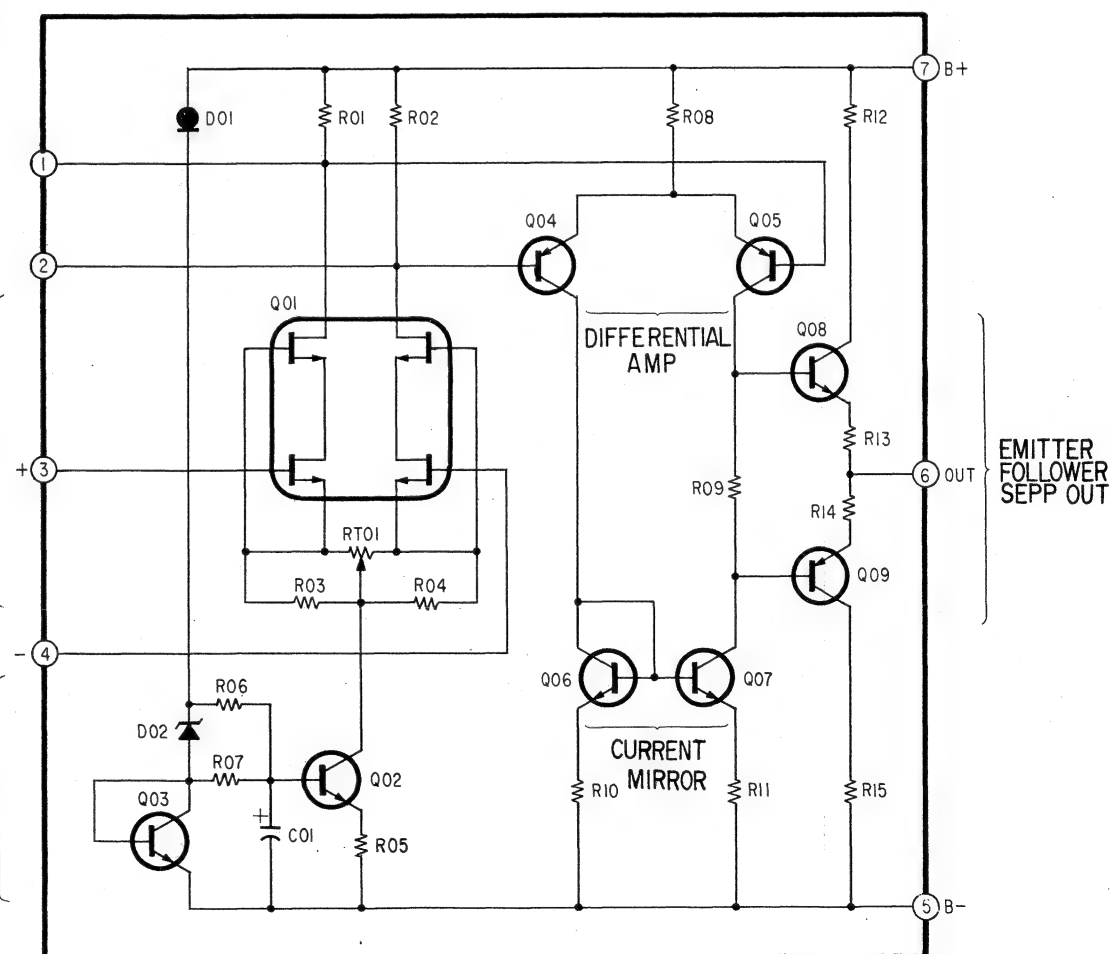
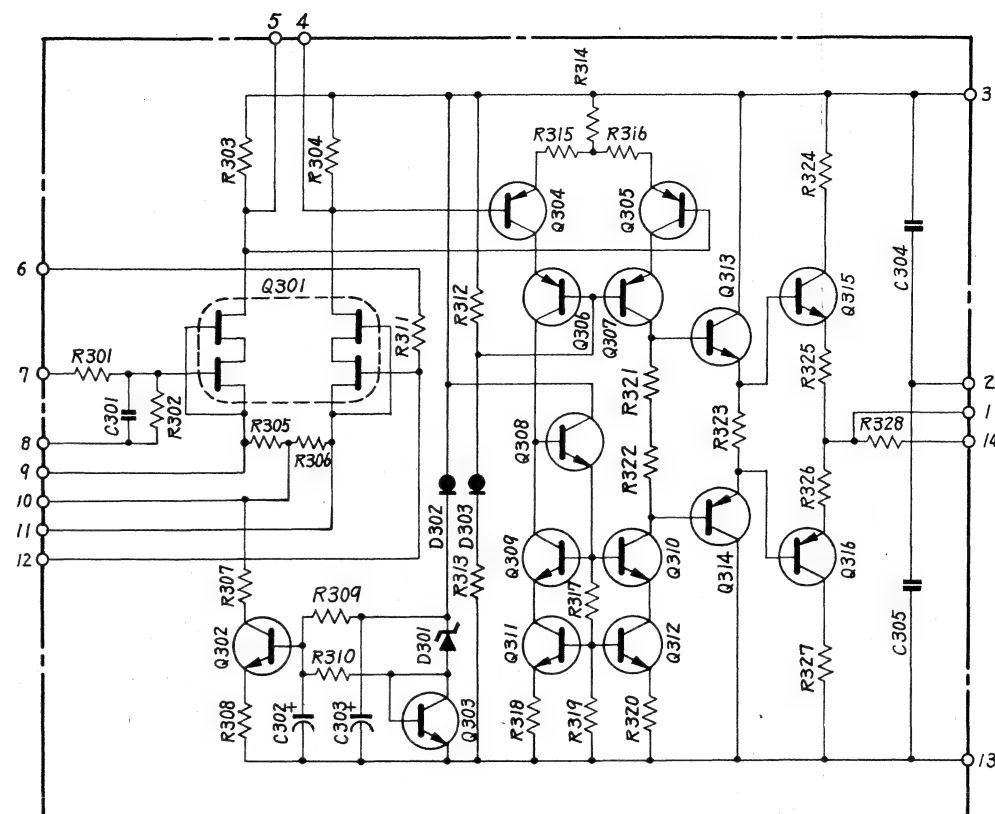
– BUFFER AMP  
MODULE –



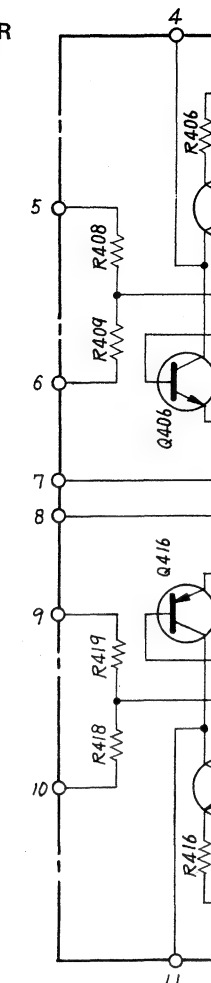
MODE CONNECTION  
DIFFERENTIAL AMP

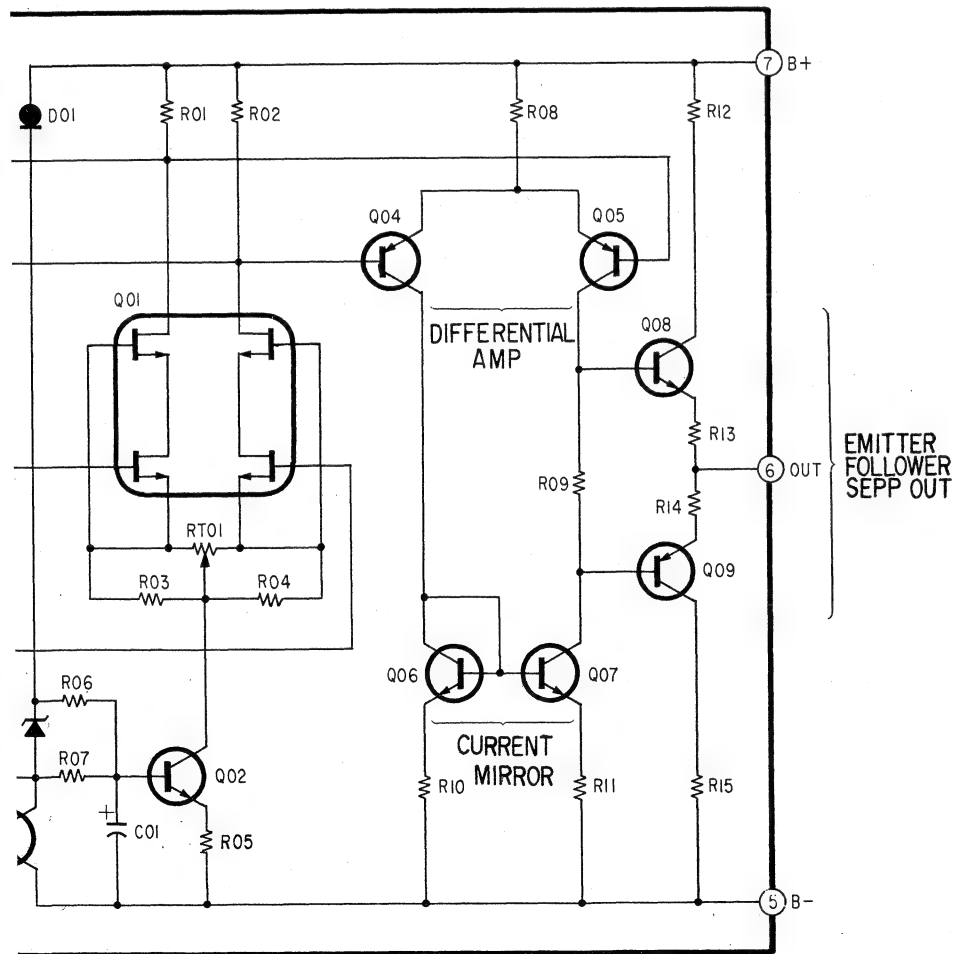
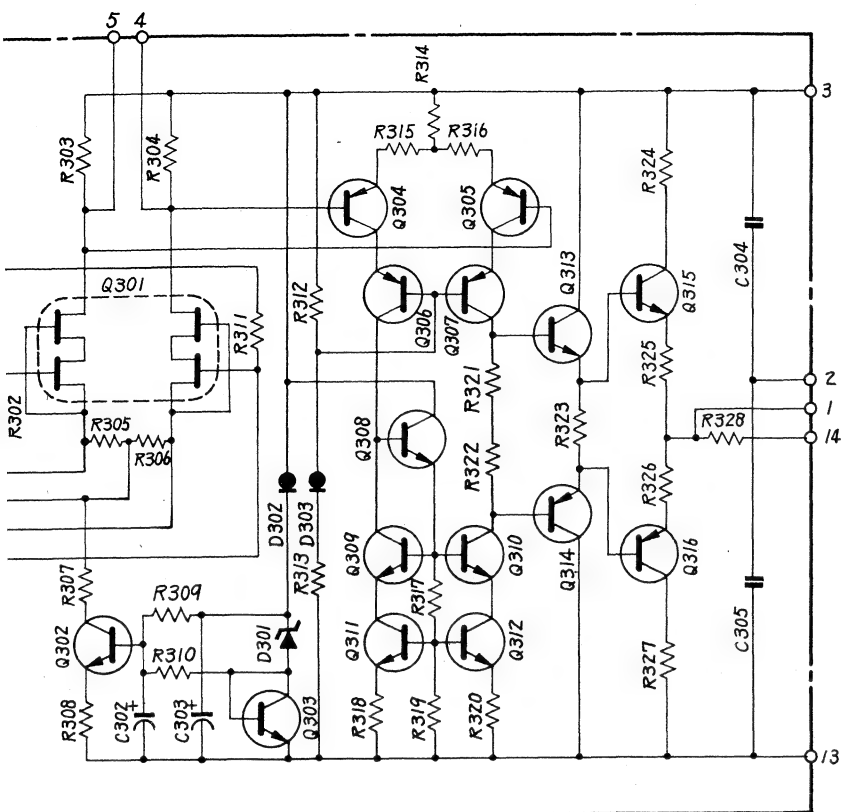


## CURRENT REGULATOR

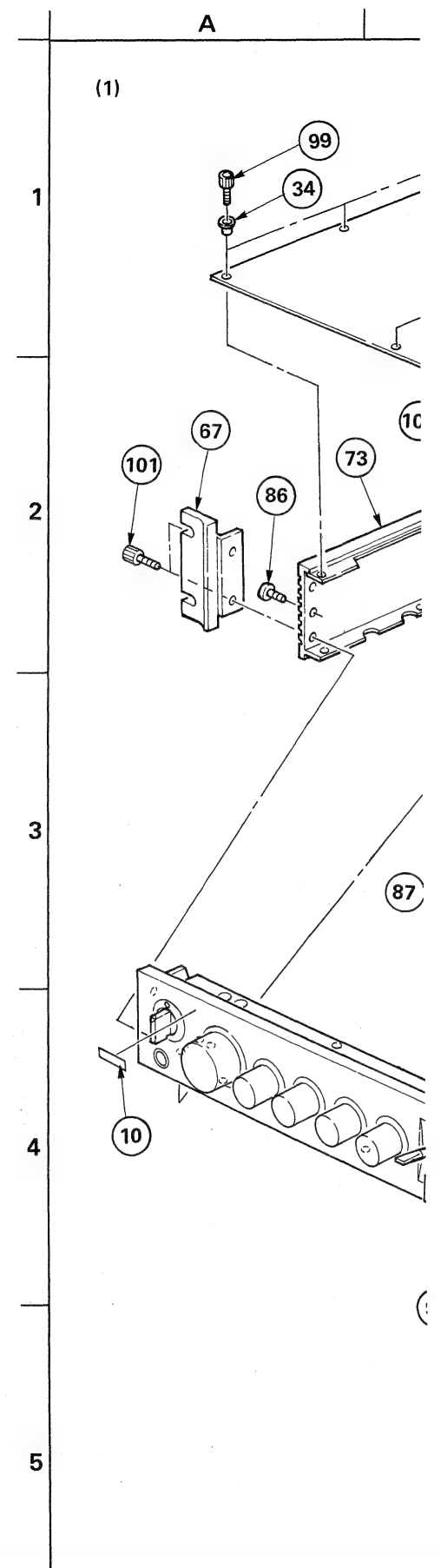
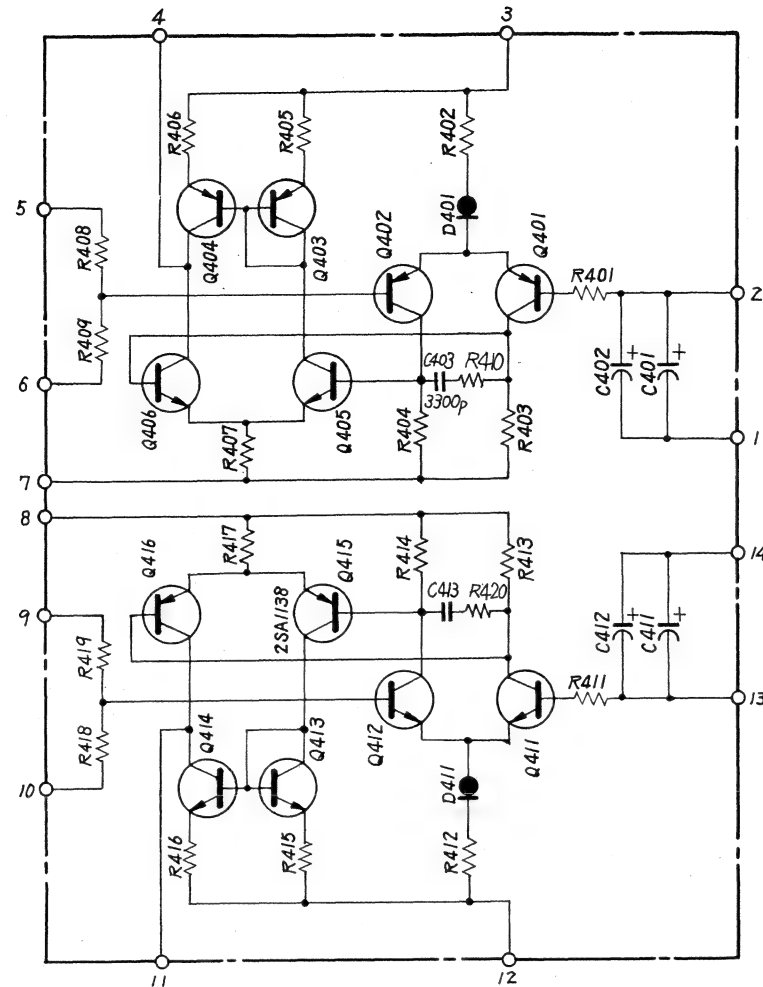


– REGULATOR  
MODULE –



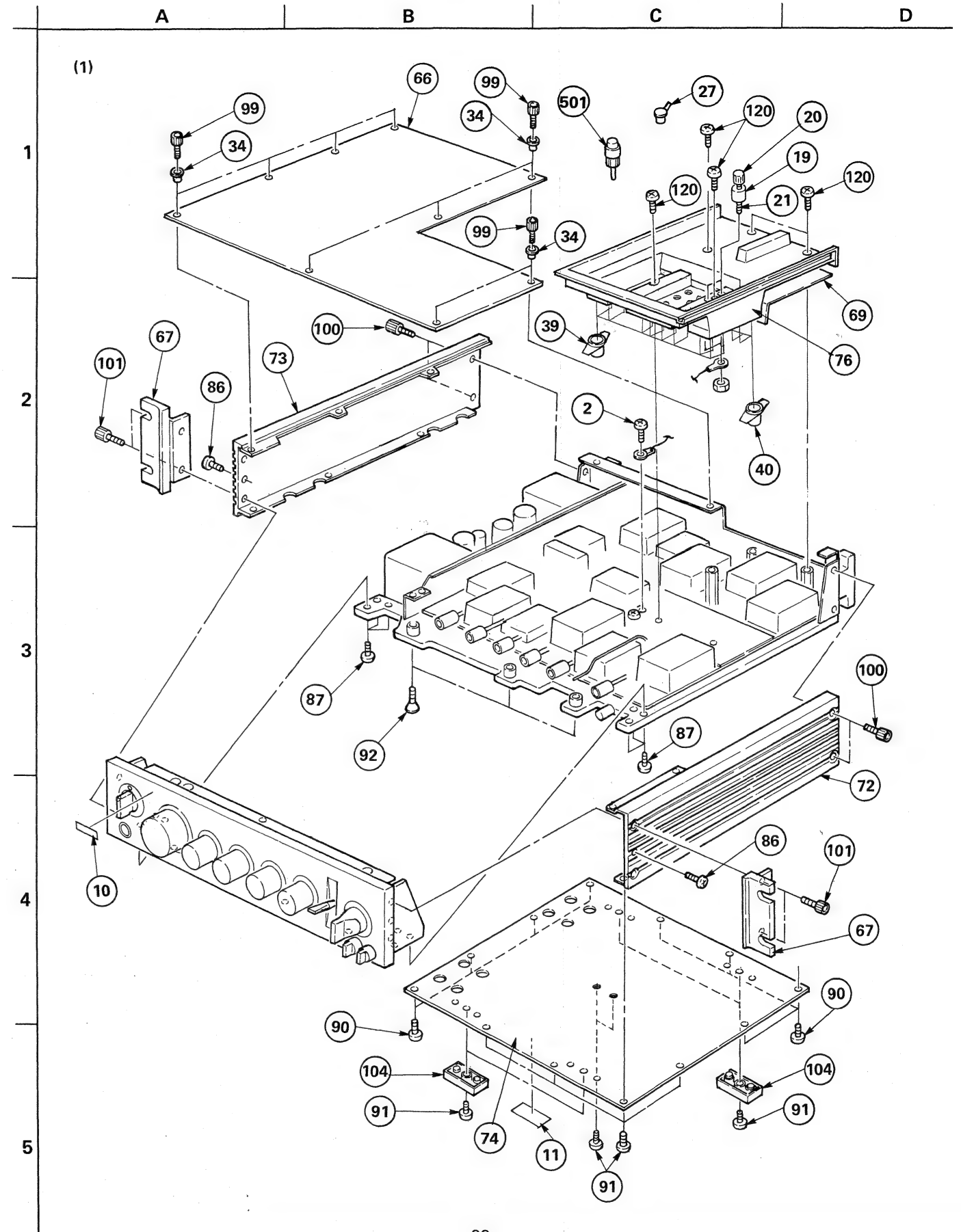
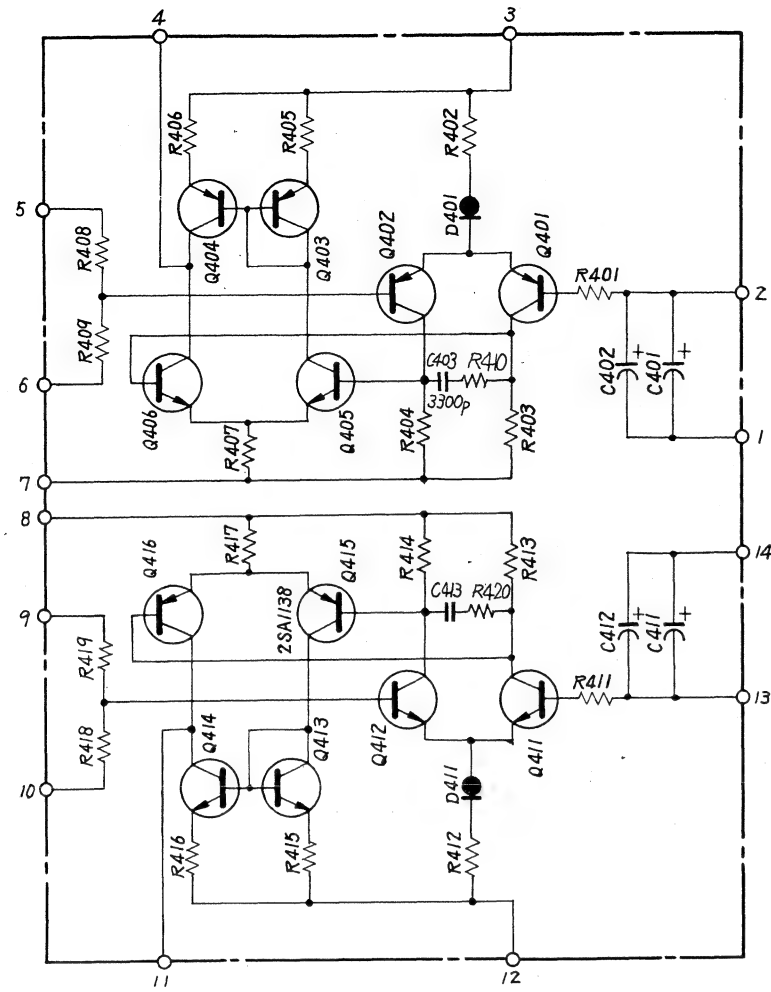


- REGULATOR  
MODULE -





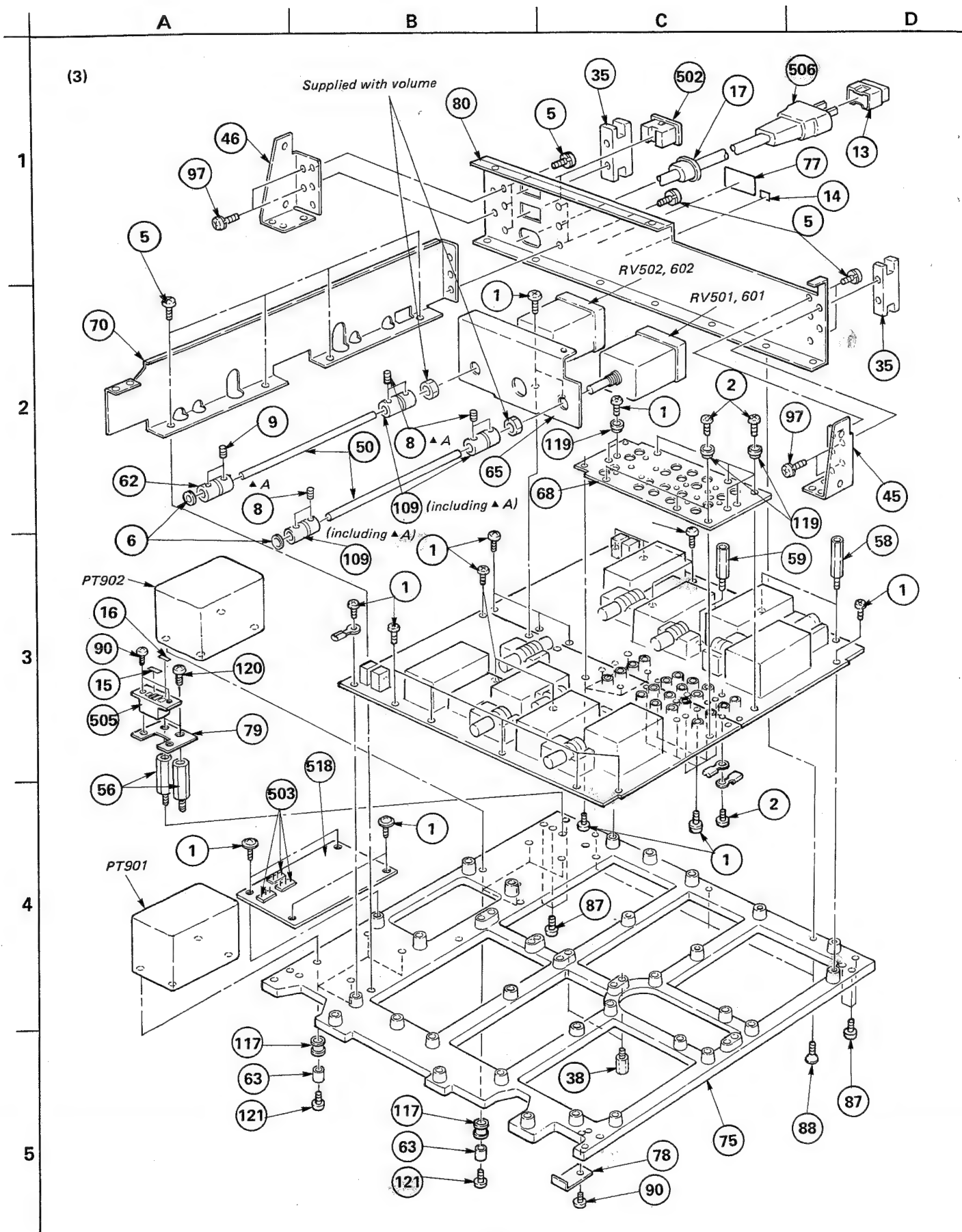
ULATOR  
ULE -

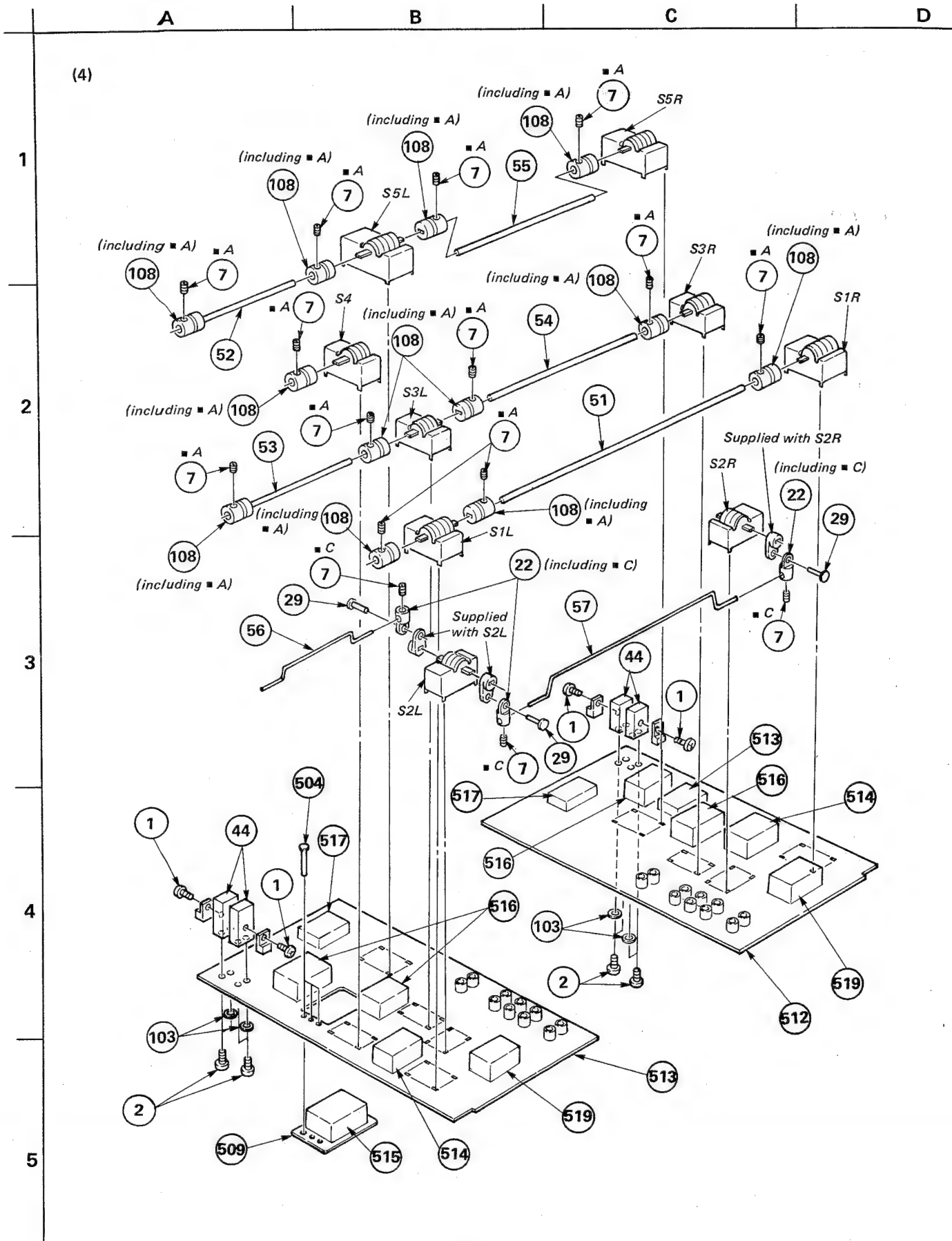






# TA-E900





# TA-E900

## GENERAL SECTION

| No. | Part No.     | Description                           |
|-----|--------------|---------------------------------------|
| 1   | 2-259-121-00 | SCREW, TR                             |
| 2   | 2-259-121-11 | SCREW, TR                             |
| 3   | 3-534-276-11 | HOLDER, LAMP                          |
| 4   | .....        |                                       |
| 5   | 3-701-429-21 | SCREW +B 3X5 W/PAWL                   |
| 6   | 3-701-444-21 | WASHER, 6                             |
| 7   | 3-701-505-00 | SET SCREW, DOUBLE POINT 3X3           |
| 8   | 3-701-506-01 | SET SCREW, DOUBLE POINT 3X4           |
| 9   | 3-701-510-00 | SET SCREW, DOUBLE POINT 4X4           |
| 10  | 3-701-690-00 | (UK)...LABEL (MADE IN JAPAN)          |
| 11  | 3-703-043-21 | (UK)...LABEL, CAUTION, MAIN           |
| 11  | 3-703-114-01 | (US)...LABEL, MAIN CAUTION            |
| 12  | .....        |                                       |
| 13  | 3-703-112-01 | (US)...GAURD, PLUG                    |
| 14  | 4-809-246-00 | (US)...LABEL, AC 120V 60Hz            |
| 15  | 4-337-218-21 | (AEP,UK)...LABEL, INDICATION, VOLTAGE |
| 16  | 4-337-218-31 | (AEP,UK)...LABEL, INDICATION, VOLTAGE |
| 17  | 4-879-936-00 | (US).....BUSHING, CORD                |
| 17  | 4-849-786-00 | (AEP,UK)...STOPPER, CORD              |
| 18  | 4-852-925-00 | LENS, POWER LAMP                      |
| 19  | 4-854-715-00 | TERMINAL (A)                          |
| 20  | 4-854-716-00 | TERMINAL (B)                          |
| 21  | 4-854-717-00 | TERMINAL (C)                          |
| 22  | 4-854-721-00 | SHAFT (B), JOINT                      |
| 23  | 4-854-722-00 | DETENT (A)                            |
| 24  | 4-854-723-00 | DETENT (B)                            |
| 25  | 4-854-725-00 | PLATE (B), ADJUSTMENT                 |
| 26  | 4-854-734-00 | ESCUTCHEON, LEVER                     |
| 27  | 4-854-741-02 | CAP, DUST PROTECTION, P.J             |
| 28  | 4-854-743-00 | SPRING, COMPRESSION                   |
| 29  | 4-854-747-00 | PIN, JOINT SHAFT                      |
| 30  | 4-854-748-02 | SHAFT, LIGHT GUIDE                    |
| 31  | .....        |                                       |
| 32  | 4-870-203-00 | BRACKET (A), POWER SWITCH             |
| 33  | 4-870-204-00 | ORNAMENT, SWITCH (B)                  |
| 34  | 4-870-210-00 | RING, PANEL RETAINER                  |
| 35  | 4-870-213-00 | BLOCK, GUARD                          |
| 36  | 4-870-220-00 | BRACKET (B), POWER SWITCH             |
| 37  | 4-870-221-00 | SHAFT, FITTING, POWER SWITCH          |
| 38  | 4-870-266-00 | SUPPORT, BLOCK                        |
| 39  | 4-876-628-01 | ORNAMENT, JACK (WHITE)                |
| 40  | 4-876-628-11 | ORNAMENT, JACK (RED)                  |
| 41  | 4-879-101-00 | DETENT (D)                            |
| 42  | 4-879-102-00 | DETENT (E)                            |

## GENERAL SECTION

| No. | Part No.     | Description                            |
|-----|--------------|--|
| 43  | 4-879-106-00 | BRACKET, FILTER SWITCH                 |
| 44  | 4-879-107-00 | HEAT SINK                              |
| 45  | 4-879-108-00 | BRACKET (C)                            |
| 46  | 4-879-109-00 | BRACKET (D)                            |
| 47  | 4-879-110-00 | BRACKET (B)                            |
| 48  | 4-879-111-00 | BRACKET (A)                            |
| 49  | 4-879-113-00 | BRACKET, SELECTION SWITCH              |
| 50  | 4-879-119-00 | SHAFT (A), RELAY                       |
| 51  | 4-879-120-00 | SHAFT (A), RELAY                       |
| 52  | 4-879-121-00 | SHAFT (B), RELAY                       |
| 53  | 4-879-122-00 | SHAFT (C), RELAY                       |
| 54  | 4-879-123-00 | SHAFT (D), RELAY                       |
| 55  | 4-879-124-00 | SHAFT (E), RELAY                       |
| 56  | 4-879-125-00 | JOINT (A)                              |
| 57  | 4-879-126-00 | JOINT (B)                              |
| 58  | 4-879-127-00 | SHAFT (A), FITTING, CASE               |
| 59  | 4-879-128-00 | SHAFT (B), FITTING, CASE               |
| 60  | 4-879-129-00 | SHAFT (A)                              |
| 61  | 4-879-130-00 | SHAFT (B)                              |
| 62  | 4-879-131-00 | BOSS (A), JOINT                        |
| 63  | 4-879-132-00 | SPACER, TRANSFORMER                    |
| 64  | 4-879-133-00 | BRACKET, JACK                          |
| 65  | 4-879-134-00 | BRACKET, CONTROL                       |
| 66  | 4-879-135-00 | PLATE, TOP                             |
| 67  | 4-879-136-00 | PANEL, SIDE                            |
| 68  | 4-879-137-00 | PLATE (A), GROUND                      |
| 69  | 4-879-139-00 | PLATE, SHIELD                          |
| 70  | 4-879-142-00 | CHASSIS, MIDWAY                        |
| 71  | 4-879-144-00 | BRACKET, KNOB                          |
| 72  | 4-879-146-00 | PANEL (R), SIDE                        |
| 73  | 4-879-147-00 | PANEL (L), SIDE                        |
| 74  | 4-879-148-00 | PLATE, BOTTOM                          |
| 75  | 4-879-149-00 | DECK                                   |
| 76  | 4-879-150-00 | CASE, JACK                             |
| 77  | 4-879-157-00 | (UK)....LABEL, MODEL NUMBER (UK)       |
| 77  | 4-879-158-00 | (AEP)....LABEL, MODEL NUMBER (AEP)     |
| 77  | 4-879-159-00 | (US)....LABEL, MODEL NUMBER (US)       |
| 78  | 4-879-160-00 | REINFORCEMENT (A)                      |
| 79  | 4-879-161-00 | (AEP,UK)...BRACKET, SELECTION, VOLTAGE |
| 80  | 4-879-143-11 | (US).....PLATE, JACK                   |
| 80  | 4-879-162-00 | (AEP,UK)...PLATE, JACK                 |
| 81  | 7-621-284-00 | SCREW +P 2.6X4                         |
| 82  | 7-623-422-07 | LW 3, TYPE B                           |
| 83  | 7-624-109-04 | STOP RING 5.0, TYPE -E                 |

### NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked "●" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

### CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers.
- MF:μF, PF:μμF.

### RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

### COILS

- MMH : mH, UH : μH

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

### SEMICONDUCTORS

In each case, U : μ, for example:  
 UA...: μA..., UPA...: μPA..., UPC...: μPC,  
 UPD...: μPD...

GENERAL SECTION

| No.  | Part No.       | Description               |
|------|----------------|---------------------------|
| 84   | .....          |                           |
| 85   | .....          |                           |
| 86   | 7-682-159-09   | SCREW +P 4X5              |
| 87   | 7-682-163-09   | SCREW +P 4X12             |
| 88   | 7-682-247-09   | SCREW +K 3X6              |
| 89   | 7-682-546-09   | SCREW +B 3X5              |
| 90   | 7-682-547-09   | SCREW +B 3X6              |
| 91   | 7-682-548-09   | SCREW +B 3X8              |
| 92   | 7-682-552-09   | SCREW +B 3X16             |
| 93   | 7-682-559-09   | SCREW +B 4X5              |
| 94   | 7-682-646-09   | SCREW +PS 3X5             |
| 95   | .....          |                           |
| 96   | 7-682-649-09   | SCREW +PS 3X10            |
| 97   | 7-682-662-09   | SCREW +PS 4X10            |
| 98   | 7-682-947-09   | SCREW +PSW 3X6            |
| 99   | 7-683-402-04   | BOLT, HEXAGON SOCKET 3X5  |
| 100  | 7-683-418-04   | BOLT, HEXAGON SOCKET 4X6  |
| 101  | 7-683-421-04   | BOLT, HEXAGON SOCKET 4X12 |
| 102  | 7-684-023-04   | N 3, TYPE 2               |
| 103  | 7-688-003-11   | SW 3, TYPE 2              |
| 104  | X-4852-903-0   | LEG ASSY                  |
| 105  | .....          |                           |
| 106  | ▲;X-4854-701-0 | BEARING ASSY (A), CONTROL |
| 107  | ▲;X-4854-702-0 | BEARING ASSY (B), CONTROL |
| ✓108 | X-4854-706-0   | JOINT (A) ASSY            |
| ✓109 | X-4854-708-0   | JOINT (B) ASSY            |
| ✓110 | X-4870-208-0   | KNOB ASSY                 |
| 111  | X-4879-102-0   | KNOB ASSY, CONTROL H      |
| 112  | X-4879-103-0   | KNOB (A) ASSY, FUNCTION   |
| 113  | X-4879-104-0   | KNOB (B) ASSY, FUNCTION   |
| 114  | X-4879-105-0   | KNOB (C) ASSY, FUNCTION   |
| 115  | X-4879-107-1   | PANEL ASSY, FRONT         |
| 116  | X-4879-108-1   | LAVER KNOB ASSY           |
| 117  | 3-103-893-11   | BUSHING, RUBBER           |
| 118  | 4-854-738-11   | CAP, KNOB                 |
| 119  | 4-857-425-00   | BUSHING, 03P INSULATING   |
| 120  | 7-621-775-10   | SCREW +B 2.6X4            |
| 121  | 7-682-562-09   | SCREW +B 4X10             |

ACCESSORY & PACKING MATERIAL

| No. | Part No.     | Description              |
|-----|--------------|--------------------------|
| 151 | 2-249-859-00 | CUSHION (A), SIDE        |
| 152 | 3-701-623-00 | BAG, POLYETHYLENE        |
| 153 | 3-701-630-00 | BAG, POLYETHYLENE        |
| 154 | 3-783-722-11 | MANUAL, INSTRUCTION      |
| 155 | 3-795-275-11 | INSTRUCTION              |
| 156 | 4-848-648-00 | BAG, PROTECTION          |
| 157 | 4-876-631-00 | CUSHION (FRONT)          |
| 158 | 4-876-632-00 | CUSHION (REAR)           |
| 159 | 4-879-104-00 | INDIVIDUAL CARTON        |
| 160 | 4-879-105-00 | LABEL, INDIVIDUAL CARTON |
| 161 | 7-721-140-60 | L-WRENCH (3.0)           |

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked "▲" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers.
- MF:μF, PF:μpF.

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

COILS

- MMH : mH, UH : μH

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

SEMICONDUCTORS

In each case, U : μ, for example:  
 UA...: μA..., UPA...: μPA..., UPC...: μPC,  
 UPD...: μPD...

# TA-E900

## ELECTRICAL PARTS

| Ref.No. | Part No.       | Description                             |
|---------|----------------|---|
| 501     | 1-506-113-00   | SHORT PLUG                              |
| 502     | ▲ 1-526-609-00 | (US)...OUTLET, AC                       |
| 503     | ▲ 1-535-116-00 | TERMINAL                                |
| 504     | ▲ 1-535-364-00 | PIN, RAPPING                            |
| 505     | 1-552-535-00   | (AEP,UK)...SWITCH, POWER VOLTAGE CHANGE |
| 506     | ▲ 1-555-701-00 | (US)...CORD, POWER                      |
| 506     | ▲ 1-555-795-00 | (AEP)...CORD, POWER                     |
| 506     | ▲ 1-556-035-00 | (UK)...CORD, POWER                      |
| 507     | .....          |   |
| 508     | .....          |   |
| 509     | ▲ 1-605-300-00 | PC BOARD, REC BUFFER SUB                |
| 510     | ▲ 1-606-040-00 | PC BOARD, LED                           |
| 511     | ▲ 1-606-595-00 | PC BOARD, CARTRIDGE LOAD SW             |
| 512     | ▲ A-4335-183-A | MOUNTED PCB, MAIN (R)                   |
| 513     | ▲ A-4335-184-A | MOUNTED PCB, MAIN (L)                   |
| 514     | A-4358-091-A   | E.Q MODULE                              |
| 515     | A-4375-145-A   | UNIT ASSY, B.F                          |
| 516     | A-4375-151-A   | F.T MODULE                              |
| 517     | A-4394-256-A   | R.G MODULE                              |
| 518     | ▲ A-4394-260-A | MOUNTED PCB, POWER SUPPLY               |
| 519     | A-4409-528-A   | H.A MODULE                              |
| C501    | 1-107-318-00   | MICA 470PF 5% 100V                      |
| C502    | 1-131-450-00   | TANTALUM 1MF 20% 50V                    |
| C503    | 1-131-450-00   | TANTALUM 1MF 20% 50V                    |
| C504    | 1-123-624-00   | ELECT 470MF 20% 120V                    |
| C505    | 1-123-624-00   | ELECT 470MF 20% 120V                    |
| C506    | 1-107-317-00   | MICA 33PF 5% 500V                       |
| C507    | 1-107-316-00   | MICA 0.056MF 2% 100V                    |
| C508    | 1-107-315-00   | MICA 0.016MF 2% 100V                    |
| C509    | 1-107-315-00   | MICA 0.016MF 2% 100V                    |
| C510    | 1-107-309-00   | MICA 100PF 5% 500V                      |
| C511    | 1-107-320-00   | MICA 0.0022MF 5% 100V                   |
| C512    | 1-131-522-00   | TANTALUM 10MF 20% 25V                   |
| C513    | 1-131-522-00   | TANTALUM 10MF 20% 25V                   |
| C514    | 1-130-662-00   | FILM 0.22MF 10% 100V                    |
| C515    | 1-131-450-00   | TANTALUM 1MF 20% 50V                    |
| C516    | 1-131-450-00   | TANTALUM 1MF 20% 50V                    |
| C517    | 1-107-320-00   | MICA 0.0022MF 5% 100V                   |
| C518    | 1-130-662-00   | FILM 0.22MF 10% 100V                    |
| C519    | 1-131-522-00   | TANTALUM 10MF 20% 25V                   |
| C520    | 1-131-522-00   | TANTALUM 10MF 20% 25V                   |
| C521    | 1-131-219-00   | TANTALUM 4.7MF 10% 35V                  |
| C522    | 1-131-219-00   | TANTALUM 4.7MF 10% 35V                  |
| C523    | 1-107-319-00   | MICA 0.001MF 5% 100V                    |
| C524    | 1-131-450-00   | TANTALUM 1MF 20% 50V                    |

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description           |
|---------|--------------|-----------------------|
| C525    | 1-131-450-00 | TANTALUM 1MF 20% 50V  |
| C526    | 1-123-380-00 | ELECT 1MF 20% 50V     |
| C527    | 1-131-450-00 | TANTALUM 1MF 20% 50V  |
| C528    | 1-131-450-00 | TANTALUM 1MF 20% 50V  |
| C529    | 1-107-320-00 | MICA 0.0022MF 5% 100V |
| C530    | 1-131-450-00 | TANTALUM 1MF 20% 50V  |
| C531    | 1-131-450-00 | TANTALUM 1MF 20% 50V  |
| C532    | 1-107-318-00 | MICA 470PF 5% 100V    |
| C533    | 1-107-311-00 | MICA 15PF 5% 500V     |
| C534    | 1-123-380-00 | ELECT 1MF 20% 50V     |
| C535    | 1-131-450-00 | TANTALUM 1MF 20% 50V  |
| C536    | 1-131-450-00 | TANTALUM 1MF 20% 50V  |
| C537    | 1-107-320-00 | MICA 0.0022MF 5% 100V |
| C538    | 1-107-320-00 | MICA 0.0022MF 5% 100V |
| C539    | 1-131-450-00 | TANTALUM 1MF 20% 50V  |
| C540    | 1-131-450-00 | TANTALUM 1MF 20% 50V  |
| C541    | 1-131-521-00 | TANTALUM 22MF 20% 50V |
| C542    | 1-131-521-00 | TANTALUM 22MF 20% 50V |
| C543    | 1-131-521-00 | TANTALUM 22MF 20% 50V |
| C544    | 1-131-521-00 | TANTALUM 22MF 20% 50V |
| C545    | 1-131-521-00 | TANTALUM 22MF 20% 50V |
| C546    | 1-131-521-00 | TANTALUM 22MF 20% 50V |
| C547    | 1-131-522-00 | TANTALUM 10MF 20% 25V |
| C548    | 1-131-522-00 | TANTALUM 10MF 20% 25V |
| C549    | 1-123-624-00 | ELECT 470MF 20% 120V  |
| C550    | 1-123-624-00 | ELECT 470MF 20% 120V  |
| C551    | 1-123-511-00 | ELECT 33MF 20% 50V    |
| C552    | 1-123-511-00 | ELECT 33MF 20% 50V    |
| C553    | 1-123-624-00 | ELECT 470MF 20% 120V  |
| C554    | 1-123-624-00 | ELECT 470MF 20% 120V  |
| C601    | 1-107-318-00 | MICA 470PF 5% 100V    |
| C602    | 1-131-450-00 | TANTALUM 1MF 20% 50V  |
| C603    | 1-131-450-00 | TANTALUM 1MF 20% 50V  |
| C604    | 1-123-624-00 | ELECT 470MF 20% 120V  |
| C605    | 1-123-624-00 | ELECT 470MF 20% 120V  |
| C606    | 1-107-317-00 | MICA 33PF 5% 500V     |
| C607    | 1-107-316-00 | MICA 0.056MF 2% 100V  |
| C608    | 1-107-315-00 | MICA 0.016MF 2% 100V  |
| C609    | 1-107-315-00 | MICA 0.016MF 2% 100V  |
| C610    | 1-107-309-00 | MICA 100PF 5% 500V    |
| C611    | 1-107-320-00 | MICA 0.0022MF 5% 100V |
| C612    | 1-131-522-00 | TANTALUM 10MF 20% 25V |
| C613    | 1-131-522-00 | TANTALUM 10MF 20% 25V |
| C614    | 1-130-662-00 | FILM 0.22MF 10% 100V  |
| C615    | 1-131-450-00 | TANTALUM 1MF 20% 50V  |

### NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked "▲" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (▲-△△△-△△△-XX or ▲-△△△△-△△△-X) may be different from those used in the set.

### CAPACITORS:

- All capacitors are in  $\mu\text{F}$ . Common capacitors are omitted. Refer to the following lists for their part numbers.

### RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

### COILS

- MMH : mH, UH :  $\mu\text{H}$

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

### SEMICONDUCTORS

In each case, U :  $\mu$ , for example:  
 UA... :  $\mu\text{A}$ ..., UPA... :  $\mu\text{PA}$ ..., UPC... :  $\mu\text{PC}$ ,  
 UPD... :  $\mu\text{PD}$ ...



## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description |          |     |      |
|---------|--------------|-------------|----------|-----|------|
| C616    | 1-131-450-00 | TANTALUM    | 1MF      | 20% | 50V  |
| C617    | 1-107-320-00 | MICA        | 0.0022MF | 5%  | 100V |
| C618    | 1-130-662-00 | FILM        | 0.22MF   | 10% | 100V |
| C619    | 1-131-522-00 | TANTALUM    | 10MF     | 20% | 25V  |
| C620    | 1-131-522-00 | TANTALUM    | 10MF     | 20% | 25V  |
| C621    | 1-131-219-00 | TANTALUM    | 4.7MF    | 10% | 35V  |
| C622    | 1-131-219-00 | TANTALUM    | 4.7MF    | 10% | 35V  |
| C623    | 1-107-319-00 | MICA        | 0.001MF  | 5%  | 100V |
| C624    | 1-131-450-00 | TANTALUM    | 1MF      | 20% | 50V  |
| C625    | 1-131-450-00 | TANTALUM    | 1MF      | 20% | 50V  |
| C626    | 1-123-487-00 | ELECT       | 470MF    | 20% | 16V  |
| C627    | 1-131-450-00 | TANTALUM    | 1MF      | 20% | 50V  |
| C628    | 1-131-450-00 | TANTALUM    | 1MF      | 20% | 50V  |
| C629    | 1-107-320-00 | MICA        | 0.0022MF | 5%  | 100V |
| C630    | 1-131-450-00 | TANTALUM    | 1MF      | 20% | 50V  |
| C631    | 1-131-450-00 | TANTALUM    | 1MF      | 20% | 50V  |
| C632    | 1-107-318-00 | MICA        | 470PF    | 5%  | 100V |
| C633    | 1-107-311-00 | MICA        | 15PF     | 5%  | 500V |
| C634    | 1-123-380-00 | ELECT       | 1MF      | 20% | 50V  |
| C635    | 1-131-450-00 | TANTALUM    | 1MF      | 20% | 50V  |
| C636    | 1-131-450-00 | TANTALUM    | 1MF      | 20% | 50V  |
| C637    | 1-107-320-00 | MICA        | 0.0022MF | 5%  | 100V |
| C638    | 1-107-320-00 | MICA        | 0.0022MF | 5%  | 100V |
| C639    | 1-131-450-00 | TANTALUM    | 1MF      | 20% | 50V  |
| C640    | 1-131-450-00 | TANTALUM    | 1MF      | 20% | 50V  |
| C641    | 1-131-521-00 | TANTALUM    | 22MF     | 20% | 50V  |
| C642    | 1-131-521-00 | TANTALUM    | 22MF     | 20% | 50V  |
| C643    | 1-131-521-00 | TANTALUM    | 22MF     | 20% | 50V  |
| C644    | 1-131-521-00 | TANTALUM    | 22MF     | 20% | 50V  |
| C645    | 1-131-521-00 | TANTALUM    | 22MF     | 20% | 50V  |
| C646    | 1-131-521-00 | TANTALUM    | 22MF     | 20% | 50V  |
| C647    | 1-131-522-00 | TANTALUM    | 10MF     | 20% | 25V  |
| C648    | 1-131-522-00 | TANTALUM    | 10MF     | 20% | 25V  |
| C649    | 1-123-624-00 | ELECT       | 470MF    | 20% | 120V |
| C650    | 1-123-624-00 | ELECT       | 470MF    | 20% | 120V |
| C651    | 1-123-511-00 | ELECT       | 33MF     | 20% | 50V  |
| C652    | 1-123-511-00 | ELECT       | 33MF     | 20% | 50V  |
| C653    | 1-123-624-00 | ELECT       | 470MF    | 20% | 120V |
| C654    | 1-123-624-00 | ELECT       | 470MF    | 20% | 120V |
| C701    | 1-123-495-00 | ELECT       | 220MF    | 20% | 25V  |
| C702    | 1-123-356-00 | ELECT       | 10MF     | 20% | 25V  |
| C703    | 1-123-488-00 | ELECT       | 1000MF   | 20% | 16V  |
| C704    | 1-123-488-00 | ELECT       | 1000MF   | 20% | 16V  |
| C705    | 1-123-895-00 | ELECT       | 2200MF   | 20% | 50V  |
| C706    | 1-123-895-00 | ELECT       | 2200MF   | 20% | 50V  |

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description                   |         |     |      |
|---------|--------------|-------------------------------|---------|-----|------|
| C707    | 1-123-895-00 | ELECT                         | 2200MF  | 20% | 50V  |
| C708    | 1-123-895-00 | ELECT                         | 2200MF  | 20% | 50V  |
| C709    | 1-123-895-00 | ELECT                         | 2200MF  | 20% | 50V  |
| C710    | 1-123-895-00 | ELECT                         | 2200MF  | 20% | 50V  |
| C711    | 1-123-895-00 | ELECT                         | 2200MF  | 20% | 50V  |
| C712    | 1-123-895-00 | ELECT                         | 2200MF  | 20% | 50V  |
| C801    | 1-107-309-00 | MICA                          | 100PF   | 5%  | 500V |
| C802    | 1-107-310-00 | MICA                          | 220PF   | 5%  | 500V |
| C803    | 1-107-167-00 | MICA                          | 75PF    | 5%  | 500V |
| C804    | 1-107-309-00 | MICA                          | 100PF   | 5%  | 500V |
| C805    | 1-107-310-00 | MICA                          | 220PF   | 5%  | 500V |
| C806    | 1-107-167-00 | MICA                          | 75PF    | 5%  | 500V |
| C901    | 1-130-456-00 | (AEP,UK)....FILM              | 0.022MF |     | 250V |
| CNJ1L   | 1-507-567-00 | PIN JACK 1P                   |         |     |      |
| CNJ1R   | 1-507-567-00 | PIN JACK 1P                   |         |     |      |
| CNJ2L   | 1-507-567-00 | PIN JACK 1P                   |         |     |      |
| CNJ2R   | 1-507-567-00 | PIN JACK 1P                   |         |     |      |
| CNJ3L   | 1-507-567-00 | PIN JACK 1P                   |         |     |      |
| CNJ3R   | 1-507-567-00 | PIN JACK 1P                   |         |     |      |
| CNJ4L   | 1-507-567-00 | PIN JACK 1P                   |         |     |      |
| CNJ4R   | 1-507-567-00 | PIN JACK 1P                   |         |     |      |
| CNJ5L   | 1-507-567-00 | PIN JACK 1P                   |         |     |      |
| CNJ5R   | 1-507-567-00 | PIN JACK 1P                   |         |     |      |
| CNJ6L   | 1-507-567-00 | PIN JACK 1P                   |         |     |      |
| CNJ6R   | 1-507-567-00 | PIN JACK 1P                   |         |     |      |
| CNJ7L   | 1-507-567-00 | PIN JACK 1P                   |         |     |      |
| CNJ7R   | 1-507-567-00 | PIN JACK 1P                   |         |     |      |
| CNJ8L   | 1-507-567-00 | PIN JACK 1P                   |         |     |      |
| CNJ8R   | 1-507-567-00 | PIN JACK 1P                   |         |     |      |
| CNJ9L   | 1-507-567-00 | PIN JACK 1P                   |         |     |      |
| CNJ9R   | 1-507-567-00 | PIN JACK 1P                   |         |     |      |
| CNJ10L  | 1-507-567-00 | PIN JACK 1P                   |         |     |      |
| CNJ10R  | 1-507-567-00 | PIN JACK 1P                   |         |     |      |
| CNJ11   | 1-507-507-00 | JACK                          |         |     |      |
| CP901A  | 1-231-326-11 | (US)...ENCAPSULATED COMPONENT |         |     |      |
| D501    | 8-719-201-11 | ✓ DIODE 10YGL1                |         |     |      |
| D502    | 8-719-201-11 | ✓ DIODE 10YGL1                |         |     |      |
| D503    | 8-719-201-11 | ✓ DIODE 10YGL1                |         |     |      |
| D504    | 8-719-201-11 | ✓ DIODE 10YGL1                |         |     |      |
| D505    | 8-719-991-21 | ✓ DIODE EQA01-12R1            |         |     |      |
| D506    | 8-719-991-21 | ✓ DIODE EQA01-12R1            |         |     |      |

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- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

## CAPACITORS:

- All capacitors are in  $\mu$ F. Common capacitors are omitted. Refer to the following lists for their part numbers.
- MF: $\mu$ F, PF: $\mu$ F.

## RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

## COILS

- MMH : mH, UH :  $\mu$ H

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

## SEMICONDUCTORS

In each case, U :  $\mu$ , for example:  
 UA....:  $\mu$ A...., UPA....:  $\mu$ PA...., UPC....:  $\mu$ PC,  
 UPD....:  $\mu$ PD....

# TA-E900

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description                    |
|---------|--------------|--------------------------------|
| D507    | 8-719-910-43 | ✓ DIODE HZ24-3L                |
| D508    | 8-719-910-43 | ✓ DIODE HZ24-3L                |
| D509    | 8-719-910-43 | ✓ DIODE HZ24-3L                |
| D510    | 8-719-910-43 | ✓ DIODE HZ24-3L                |
| D511    | 8-719-200-02 | ✓ DIODE 10E-2                  |
| D512    | 8-719-200-02 | ✓ DIODE 10E-2                  |
| D601    | 8-719-201-11 | ✓ DIODE 10YG1.1                |
| D602    | 8-719-201-11 | ✓ DIODE 10YG1.1                |
| D603    | 8-719-201-11 | ✓ DIODE 10YG1.1                |
| D604    | 8-719-201-11 | ✓ DIODE 10YG1.1                |
| D605    | 8-719-991-21 | ✓ DIODE EQA01-12R1             |
| D606    | 8-719-991-21 | ✓ DIODE EQA01-12R1             |
| D607    | 8-719-910-43 | ✓ DIODE HZ24-3L                |
| D608    | 8-719-910-43 | ✓ DIODE HZ24-3L                |
| D609    | 8-719-910-43 | ✓ DIODE HZ24-3L                |
| D610    | 8-719-910-63 | ✓ DIODE HZ24-3L                |
| D611    | 8-719-200-02 | ✓ DIODE 10E-2                  |
| D612    | 8-719-200-02 | ✓ DIODE 10E-2                  |
| D701    | 8-719-815-55 | ✓ DIODE 1S1555                 |
| D702    | 8-719-200-02 | ✓ DIODE 10E-2                  |
| D703    | 8-719-510-10 | ✓ DIODE 1SRB10                 |
| D705    | 8-719-211-02 | ✓ DIODE PB102F                 |
| D706    | 8-719-211-02 | ✓ DIODE PB102F                 |
| D901    | 8-719-921-14 | ✓ DIODE SLP114A                |
| PL1     | 1-518-331-81 | LAMP, PILOT                    |
| PT901A  | 1-447-074-00 | (US).....TRANSFORMER, POWER    |
| PT901A  | 1-447-198-00 | (AEP,UK)....TRANSFORMER, POWER |
| PT902A  | 1-447-074-00 | (US).....TRANSFORMER, POWER    |
| PT902A  | 1-447-198-00 | (AEP,UK)....TRANSFORMER, POWER |
| Q501    | 8-729-376-02 | ✓ TRANSISTOR 2SD760            |
| Q502    | 8-729-113-82 | ✓ TRANSISTOR 2SA1138           |
| Q503    | 8-729-372-02 | ✓ TRANSISTOR 2SB720            |
| Q504    | 8-729-167-62 | ✓ TRANSISTOR 2SC2676           |
| Q505    | 8-729-113-82 | ✓ TRANSISTOR 2SA1138           |
| Q506    | 8-729-113-82 | ✓ TRANSISTOR 2SA1138           |
| Q507    | 8-729-167-62 | ✓ TRANSISTOR 2SC2676           |
| Q508    | 8-729-167-62 | ✓ TRANSISTOR 2SC2676           |
| Q601    | 8-729-376-02 | ✓ TRANSISTOR 2SD760            |
| Q602    | 8-729-113-82 | ✓ TRANSISTOR 2SA1138           |
| Q603    | 8-729-372-02 | ✓ TRANSISTOR 2SB720            |
| Q604    | 8-729-167-62 | ✓ TRANSISTOR 2SC2676           |
| Q605    | 8-729-113-82 | ✓ TRANSISTOR 2SA1138           |
| Q606    | 8-729-113-82 | ✓ TRANSISTOR 2SA1138           |
| Q607    | 8-729-167-62 | ✓ TRANSISTOR 2SC2676           |

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- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

### CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:μF, PF:μμF.

### RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.


- F : nonflammable

### COILS

- MMH : mH, UH : μH

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description          |
|---------|--------------|----------------------|
| Q608    | 8-729-167-62 | ✓ TRANSISTOR 2SC2676 |
| Q701    | 8-729-103-43 | ✓ TRANSISTOR 2SB734  |
| Q702    | 8-729-663-47 | ✓ TRANSISTOR 2SC1364 |
| R501    | 1-215-237-00 | METAL 100K 1% 1W     |
| R502    | 1-214-840-00 | METAL 100 1% 1/2W    |
| R503    | 1-214-840-00 | METAL 100 1% 1/2W    |
| R505    | 1-214-871-00 | METAL 2K 1% 1/2W     |
| R506    | 1-214-871-00 | METAL 2K 1% 1/2W     |
| R507    | 1-215-229-00 | METAL 100 1% 1W      |
| R508    | 1-214-862-00 | METAL 820 1% 1/2W    |
| R509    | 1-215-234-00 | METAL 11K 1% 1W      |
| R510    | 1-214-991-00 | METAL 8.2K 1% 1W     |
| R511    | 1-214-836-00 | METAL 68 1% 1/2W     |
| R512    | 1-214-864-00 | METAL 1K 1% 1/2W     |
| R513    | 1-214-913-00 | METAL 100K 1% 1/2W   |
| R514    | 1-214-836-00 | METAL 68 1% 1/2W     |
| R515    | 1-214-913-00 | METAL 100K 1% 1/2W   |
| R516    | 1-214-913-00 | METAL 100K 1% 1/2W   |
| R518    | 1-214-913-00 | METAL 100K 1% 1/2W   |
| R520    | 1-214-880-00 | METAL 4.7K 1% 1/2W   |
| R521    | 1-214-880-00 | METAL 4.7K 1% 1/2W   |
| R522    | 1-214-905-00 | METAL 47K 1% 1/2W    |
| R523    | 1-214-905-00 | METAL 47K 1% 1/2W    |
| R524    | 1-214-905-00 | METAL 47K 1% 1/2W    |
| R525    | 1-214-905-00 | METAL 47K 1% 1/2W    |
| R526    | 1-215-232-00 | METAL 1K 1% 1W       |
| R527    | 1-214-844-00 | METAL 150 1% 1/2W    |
| R528    | 1-215-230-00 | METAL 220 1% 1W      |
| R529    | 1-214-820-00 | METAL 15 1% 1/2W     |
| R531    | 1-214-870-00 | METAL 1.8K 1% 1/2W   |
| R532    | 1-214-108-00 | METAL 100 1% 1/4W    |
| R533    | 1-214-108-00 | METAL 100 1% 1/4W    |
| R534    | 1-214-124-00 | METAL 470 1% 1/4W    |
| R535    | 1-214-124-00 | METAL 470 1% 1/4W    |
| R536    | 1-214-880-00 | METAL 4.7K 1% 1/2W   |
| R537    | 1-214-880-00 | METAL 4.7K 1% 1/2W   |
| R538    | 1-214-872-00 | METAL 2.2K 1% 1/2W   |
| R539    | 1-214-872-00 | METAL 2.2K 1% 1/2W   |
| R540    | 1-214-868-00 | METAL 1.5K 1% 1/2W   |
| R541    | 1-214-868-00 | METAL 1.5K 1% 1/2W   |
| R542    | 1-214-116-00 | METAL 220 1% 1/4W    |
| R543    | 1-214-116-00 | METAL 220 1% 1/4W    |
| R544    | 1-214-140-00 | METAL 2.2K 1% 1/4W   |
| R545    | 1-214-140-00 | METAL 2.2K 1% 1/4W   |
| R546    | 1-214-858-31 | METAL 560 1% 1/2W    |

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

### SEMICONDUCTORS

In each case, U : μ, for example:  
UA.... : μA..., UPA.... : μPA..., UPC.... : μPC,  
UPD.... : μPD...

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description |      |    |      |
|---------|--------------|-------------|------|----|------|
| R547    | 1-214-858-31 | METAL       | 560  | 1% | 1/2W |
| R601    | 1-215-237-00 | METAL       | 100K | 1% | 1W   |
| R602    | 1-214-840-00 | METAL       | 100  | 1% | 1/2W |
| R603    | 1-214-840-00 | METAL       | 100  | 1% | 1/2W |
| R605    | 1-214-871-00 | METAL       | 2K   | 1% | 1/2W |
| R606    | 1-214-871-00 | METAL       | 2K   | 1% | 1/2W |
| R607    | 1-215-229-00 | METAL       | 100  | 1% | 1W   |
| R608    | 1-214-862-00 | METAL       | 820  | 1% | 1/2W |
| R609    | 1-215-234-00 | METAL       | 11K  | 1% | 1W   |
| R610    | 1-214-991-00 | METAL       | 8.2K | 1% | 1W   |
| R611    | 1-214-836-00 | METAL       | 68   | 1% | 1/2W |
| R612    | 1-214-864-00 | METAL       | 1K   | 1% | 1/2W |
| R613    | 1-214-913-00 | METAL       | 100K | 1% | 1/2W |
| R614    | 1-214-836-00 | METAL       | 68   | 1% | 1/2W |
| R615    | 1-214-913-00 | METAL       | 100K | 1% | 1/2W |
| R616    | 1-214-913-00 | METAL       | 100K | 1% | 1/2W |
| R618    | 1-214-913-00 | METAL       | 100K | 1% | 1/2W |
| R620    | 1-214-880-00 | METAL       | 4.7K | 1% | 1/2W |
| R621    | 1-214-880-00 | METAL       | 4.7K | 1% | 1/2W |
| R622    | 1-214-905-00 | METAL       | 47K  | 1% | 1/2W |
| R623    | 1-214-905-00 | METAL       | 47K  | 1% | 1/2W |
| R624    | 1-214-905-00 | METAL       | 47K  | 1% | 1/2W |
| R625    | 1-214-905-00 | METAL       | 47K  | 1% | 1/2W |
| R626    | 1-215-232-00 | METAL       | 1K   | 1% | 1W   |
| R627    | 1-214-844-00 | METAL       | 150  | 1% | 1/2W |
| R628    | 1-215-230-00 | METAL       | 220  | 1% | 1W   |
| R629    | 1-214-820-00 | METAL       | 15   | 1% | 1/2W |
| R631    | 1-214-870-00 | METAL       | 1.8K | 1% | 1/2W |
| R632    | 1-214-108-00 | METAL       | 100  | 1% | 1/4W |
| R633    | 1-214-108-00 | METAL       | 100  | 1% | 1/4W |
| R634    | 1-214-124-00 | METAL       | 470  | 1% | 1/4W |
| R635    | 1-214-124-00 | METAL       | 470  | 1% | 1/4W |
| R636    | 1-214-880-00 | METAL       | 4.7K | 1% | 1/2W |
| R637    | 1-214-880-00 | METAL       | 4.7K | 1% | 1/2W |
| R638    | 1-214-872-00 | METAL       | 2.2K | 1% | 1/2W |
| R639    | 1-214-872-00 | METAL       | 2.2K | 1% | 1/2W |
| R640    | 1-214-868-00 | METAL       | 1.5K | 1% | 1/2W |
| R641    | 1-214-868-00 | METAL       | 1.5K | 1% | 1/2W |
| R642    | 1-214-116-00 | METAL       | 220  | 1% | 1/4W |
| R643    | 1-214-116-00 | METAL       | 220  | 1% | 1/4W |
| R644    | 1-214-140-00 | METAL       | 2.2K | 1% | 1/4W |
| R645    | 1-214-140-00 | METAL       | 2.2K | 1% | 1/4W |
| R646    | 1-214-858-31 | METAL       | 560  | 1% | 1/2W |
| R647    | 1-214-858-31 | METAL       | 560  | 1% | 1/2W |
| R701    | 1-214-092-00 | METAL       | 22   | 1% | 1/4W |

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description           |      |    |      |
|---------|--------------|-----------------------|------|----|------|
| R702    | 1-214-141-00 | METAL                 | 2.4K | 1% | 1/4W |
| R704    | 1-214-140-00 | METAL                 | 2.2K | 1% | 1/4W |
| R705    | 1-214-148-00 | METAL                 | 4.7K | 1% | 1/4W |
| R706    | 1-214-172-00 | METAL                 | 47K  | 1% | 1/4W |
| R707    | 1-214-156-00 | METAL                 | 10K  | 1% | 1/4W |
| R708    | 1-214-177-00 | METAL                 | 75K  | 1% | 1/4W |
| R709    | 1-214-105-00 | METAL                 | 75   | 1% | 1/4W |
| R710    | 1-214-109-00 | METAL                 | 110  | 1% | 1/4W |
| R711    | 1-214-140-00 | METAL                 | 2.2K | 1% | 1/4W |
| R801    | 1-214-901-00 | METAL                 | 33K  | 1% | 1/2W |
| R802    | 1-214-913-00 | METAL                 | 100K | 1% | 1/2W |
| R803    | 1-214-901-00 | METAL                 | 33K  | 1% | 1/2W |
| R804    | 1-214-913-00 | METAL                 | 100K | 1% | 1/2W |
| RT501   | 1-226-149-11 | RES, ADJ, METAL FILM  | 100  |    |      |
| RT502   | 1-226-149-11 | RES, ADJ, METAL FILM  | 100  |    |      |
| RT503   | 1-226-149-11 | RES, ADJ, METAL FILM  | 100  |    |      |
| RT601   | 1-226-149-11 | RES, ADJ, METAL FILM  | 100  |    |      |
| RT602   | 1-226-149-11 | RES, ADJ, METAL FILM  | 100  |    |      |
| RT603   | 1-226-149-11 | RES, ADJ, METAL FILM  | 100  |    |      |
| RY501   | 1-515-323-00 | RELAY                 |      |    |      |
| RY502   | 1-515-323-00 | RELAY                 |      |    |      |
| RY601   | 1-515-323-00 | RELAY                 |      |    |      |
| RY602   | 1-515-323-00 | RELAY                 |      |    |      |
| RV501   | 1-226-147-11 | RES, VAR 3K           |      |    |      |
| RV502   | 1-226-148-00 | RES, VAR 3K           |      |    |      |
| RV601   | 1-226-147-11 | RES, VAR 3K           |      |    |      |
| RV602   | 1-226-148-00 | RES, VAR 3K           |      |    |      |
| S1L     | 1-553-814-00 | SWITCH, ROTARY SLIDE  |      |    |      |
| S1R     | 1-553-814-00 | SWITCH, ROTARY SLIDE  |      |    |      |
| S2L     | 1-552-288-21 | SWITCH, FUNCTION      |      |    |      |
| S2R     | 1-552-288-31 | SWITCH, FUNCTION      |      |    |      |
| S3L     | 1-552-287-00 | SWITCH, TAPE MONI     |      |    |      |
| S3R     | 1-552-287-00 | SWITCH, TAPE MONI     |      |    |      |
| S4      | 1-552-287-00 | SWITCH, TAPE MONI     |      |    |      |
| S5L     | 1-553-815-00 | SWITCH, ROTARY SLIDE  |      |    |      |
| S5R     | 1-553-815-00 | SWITCH, ROTARY SLIDE  |      |    |      |
| S6      | 1-553-796-00 | SWITCH, ROTARY F      |      |    |      |
| S7      | 1-553-796-00 | SWITCH, ROTARY        |      |    |      |
| S8      | 1-552-255-00 | SWITCH, PUSH          |      |    |      |
| S9      | 1-552-974-00 | (US).....SWITCH, AC   |      |    |      |
| S9      | 1-552-975-00 | (AEP,UK)...SWITCH, AC |      |    |      |

## NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked "•" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

## CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF: μF, PF: μμF.


## RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

## COILS

- MMH : mH, UH : μH

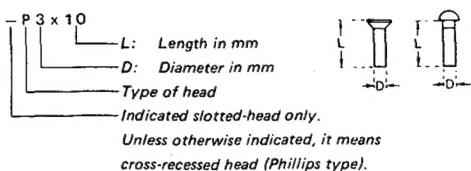
The components identified by shading and mark  are critical for safety. Replace only with part number specified.

## SEMICONDUCTORS

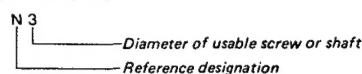
In each case, U : μ, for example:  
 UA.... : μA..., UPA.... : μPA..., UPC.... : μPC,  
 UPD.... : μPD...

## HARDWARE NOMENCLATURE

Screw:



Nut, Washer, Retaining ring:



| Reference Designation | Shape | Description                                 | Remarks  |
|-----------------------|-------|---|--|
| <b>SCREWS</b>         |       |   |  |
| P                     |       | pan-head screw                              | binding-head (B) screw for replacement                             |
| PWH                   |       | pan-head screw with washer face             | binding-head (B) screw and flat washer for replacement             |
| PS<br>PSP             |       | pan-head screw with spring washer           | binding-head (B) screw and spring washer for replacement           |
| PSW<br>PSPW           |       | pan-head screw with spring and flat washers | binding-head (B) screw and spring and flat washers for replacement |
| R                     |       | round-head screw                            | binding-head (B) screw for replacement                             |
| K                     |       | flat-countersunk-head screw                 |  |
| RK                    |       | oval-countersunk-head screw                 |  |
| B                     |       | binding-head screw                          |  |
| T                     |       | truss-head screw                            | binding-head (B) screw for replacement                             |
| F                     |       | flat-fillister-head screw                   |  |
| RF                    |       | fillister-head screw                        |  |
| BV                    |       | brazer-head screw                           |  |

| Reference Designation      | Shape | Description                                    | Remarks   |
|----------------------------|-------|--|---|
| <b>SELF-TAPPING SCREWS</b> |       |  |   |
| TA                         |       | self-tapping screw                             | ex: TA, P 3 x 10  |
| PTP                        |       | pan-head self-tapping screw                    | binding-head self-tapping (TA, B) screw for replacement                 |
| PTPWH                      |       | pan-head self-tapping screw with washer face   | binding-head self-tapping (TA, B) screw and flat washer for replacement |
| PTTWH                      |       | pan-head thread-rolling screw with washer face | binding-head (B) screw and flat washer for replacement                  |
| <b>SET SCREWS</b>          |       |  |   |
| SC                         |       | set screw                                      |   |
| SC                         |       | hexagon-socket set screw                       | ex: SC 2.6 x 4, hexagon socket  |
| <b>NUT</b>                 |       |  |   |
| N                          |       | nut  |   |
| <b>WASHERS</b>             |       |  |   |
| W                          |       | flat washer                                    |   |
| SW                         |       | spring washer                                  |   |
| LW                         |       | internal-tooth lock washer                     | ex: LW3, internal   |
| LW                         |       | external-tooth lock washer                     | ex: LW3, external   |
| <b>RETAINING RINGS</b>     |       |  |   |
| E                          |       | retaining ring                                 |   |
| G                          |       | grip-type retaining ring                       |   |

# TA-E900

## SUPPLEMENT

US Model

File this supplement with the service manual.

No. 1

March, 1983

### ©SAFETY CHECK-OUT (US Model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

#### LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

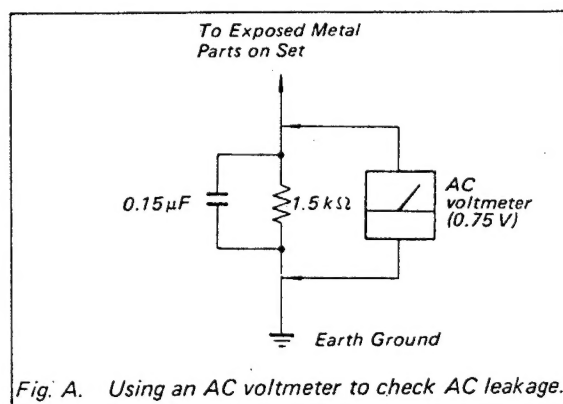


Fig. A. Using an AC voltmeter to check AC leakage.

© The following parts have been added as the safety-related components.

|      |                |       |         |     |      |
|------|----------------|-------|---------|-----|------|
| C553 | △ 1-123-624-00 | ELECT | 470 MF  | 20% | 120V |
| C554 | △ 1-123-624-00 | ELECT | 470 MF  | 20% | 120V |
| C653 | △ 1-123-624-00 | ELECT | 470 MF  | 20% | 120V |
| C654 | △ 1-123-624-00 | ELECT | 470 MF  | 20% | 120V |
| C701 | △ 1-123-495-00 | ELECT | 220 MF  | 20% | 25V  |
| C703 | △ 1-123-488-00 | ELECT | 1000 MF | 20% | 16V  |
| C704 | △ 1-123-488-00 | ELECT | 1000 MF | 20% | 16V  |
| C705 | △ 1-123-895-00 | ELECT | 2200 MF | 20% | 50V  |
| C706 | △ 1-123-895-00 | ELECT | 2200 MF | 20% | 50V  |
| C707 | △ 1-123-895-00 | ELECT | 2200 MF | 20% | 50V  |
| C708 | △ 1-123-895-00 | ELECT | 2200 MF | 20% | 50V  |
| C709 | △ 1-123-895-00 | ELECT | 2200 MF | 20% | 50V  |
| C710 | △ 1-123-895-00 | ELECT | 2200 MF | 20% | 50V  |
| C711 | △ 1-123-895-00 | ELECT | 2200 MF | 20% | 50V  |
| C712 | △ 1-123-895-00 | ELECT | 2200 MF | 20% | 50V  |

The components identified by shading and mark △ are critical for safety. Replace only with part number specified.

**SONY**  
SERVICE MANUAL